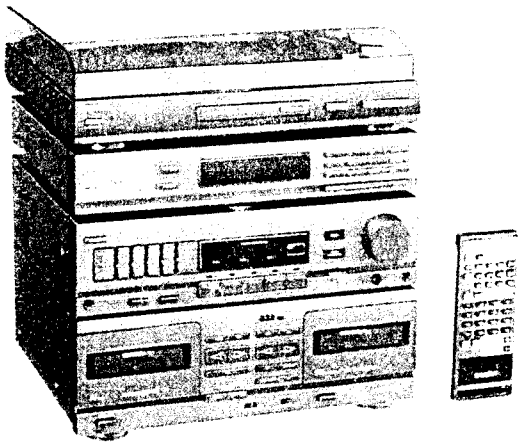
XO-D50

SERVICE MANUAL

AEP Model
UK Model



- XO-D50 is composed following models. As for the service manual it is issued for each component model, then, please refer to it.

COMPONENT MODEL NAME FOR XO-D50

	AEP West Germany Italian	UK
TUNER	ST-D50L	ST-D50L
DECK AMPLIFER	DXA-D50	DXA-D50
TURNTABLE SYSTEM	————	PS-LX60P

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-417-090-00	(IT)...TRANSFORMER, ANTENNA MATCHING
1-501-349-11	(AEP,UK,IT)...ANTENNA, LOOP
1-501-351-21	(IT)...ANTENNA, FEEDER
1-559-830-11	CORD (WITH CONNECTOR) 7P
3-701-630-00	BAG, POLYETHYLINE
3-701-806-03	(UK)...ADAPTOR, 45, (E)
3-769-938-11	(AEP,WG)...MANUAL, INSTRUCTION
3-769-938-41	(AEP,WG,IT)...MANUAL, INSTRUCTION
3-769-938-51	(UK)...MANUAL, INSTRUCTION
4-914-075-01	CUSHION (SP)
*4-924-014-01	(AEP,WG,IT)...INDIVIDUAL CARTON
*4-924-017-01	(UK)...INDIVIDUAL CARTON

IT: Italian
WG: West Germany

SPECIFICATIONS

Accessories supplied

RM-L510 Remote commander (1)
Sony SUM-3 (NS) batteries (2)
Flat cord with 5-pin connectors (1)
Flat cord with 7-pin connectors (1)
FM antenna (Only Italian model) (1)
AM antenna (1)
Antenna matching transformer (1) (Only Italian model)
Speaker cushions (1 set)

COMPACT Hi-Fi STEREO SYSTEM

SONY®

English
88B0455-1
Printed in Japan
© 1988. 2
Published by A/V Engineering Service Dept.

MICROFILM

9-953-116-11

Sony Corporation
Audio Group

TC-R707/R707M

SONY
SERVICE MANUAL

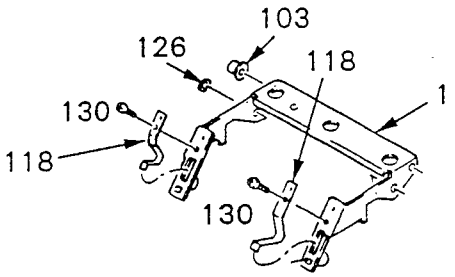
US Model
AEP Model
TC-R707M
UK Model
E Model
German Model
TC-R707

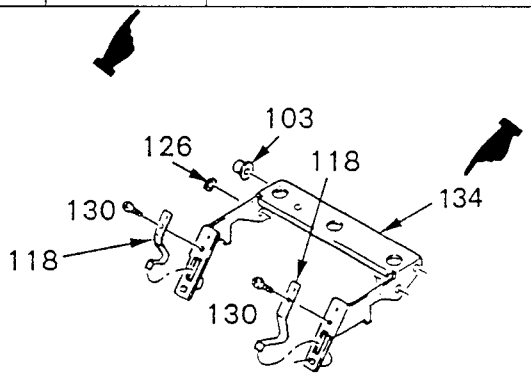
CORRECTION-1

File this correction with the Service Manual.

: Corrected portion (Service Manual page 14)

INCORRECT	CORRECT		
No.	No.	Part No.	Description
1	134	X-3332-548-1	LEVER ASSY, CASSETTE RETAINER





9-953-251-91

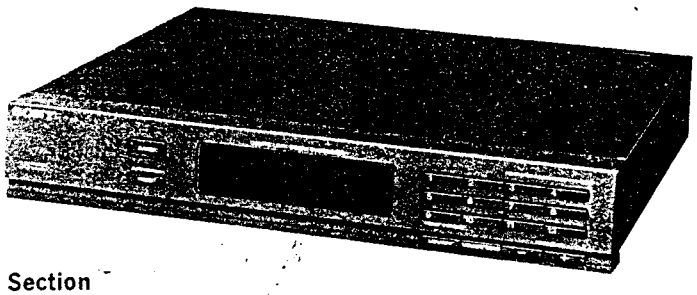
Sony Corporation
Audio Group

English
92A0589-1
Printed in Japan
© 1992. 1
Published by Customer Relations and Service Group

ST-D50L

SERVICE MANUAL

AEP Model
UK Model



This Set The Tuner Section
In XO-D50

SPECIFICATIONS

Tuner section

Syslem — MF slereo, FM/AM Superheterodyne tuner

FM tuner section

Tuning range — 87.5 to 108 MHz
Antenna terminals — 75 ohms unbalanced

MW/LW tuner section

	MW	LW
Tuning range	522 to 1,611 kHz (Italian model) 531 to 1,602 kHz (Other European countries)	144 to 288 kHz (Italian model) 153 to 281 kHz (Other European countries)
Anienna	AM Loop antenna, External antenna terminal	
Intermediate frequency	450 kHz	

Dimensions — Approx. 355×70×310 mm (Wh/d)
($14\times2^{11}/_{16}\times12^{1}/_{4}$ inches)
Iricl. projecting parts and contiols

Weight — Apprtx. 1.9 kg (4 ld 3 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

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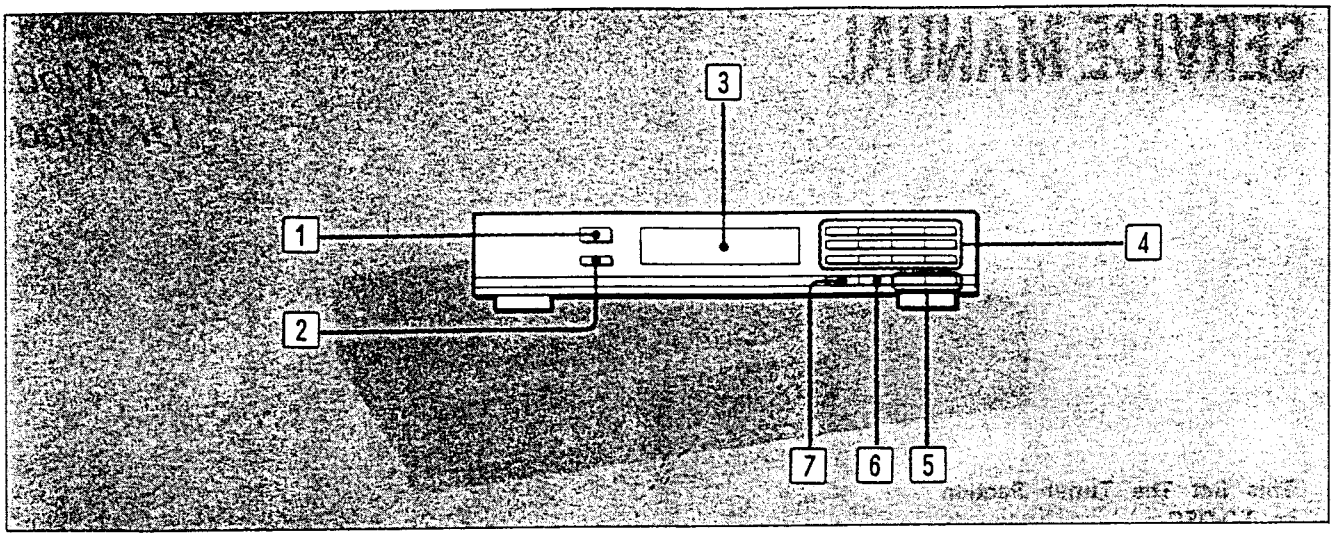
FM STEREO/FM/MW/LW TUNER

SONY®

SECTION 1
GENERAL

1-1. PARTS IDENTIFICATION



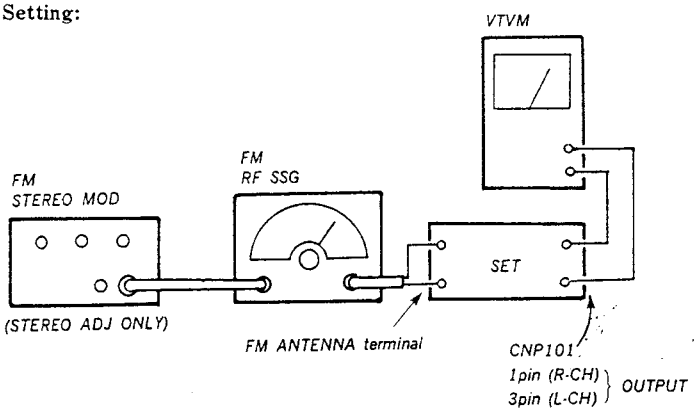
1 BAND selector
ST-D50L: FM, MW, LW
ST-D50S: FM, MW, SW1, SW2
2 AUTO/MANUAL mode selector
3 Band/frequency display
4 PRESET buttons
5 TUNING +/– buttons (station selector)
6 MEMORY SCAN button
7 MEMORY button

SECTION 2
ELECTRICAL ADJUSTMENTS

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

2-1. FM SECTION ADJUSTMENT

Setting:



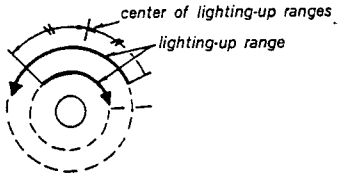
Carrier frequency	: 98MHz
Modulation	: 1kHz
Deviation	: 40kHz (MONO only)
Output level	: 66dBμ (at NULL/STEREO Adjustment)
	: 25dBμ (at TUNED Adjustment)
Stereo MOD setting	
Sub channel	: 38kHz
Deviation	: 16.25kHz
Pilot signal	: 19kHz
Deviation	: 7.5kHz
Modulation	: 1kHz—16.25kHz deviation

1. Discriminator Alignment (NULL check)

1. Push the TUNING (+, −) button for 98MHz.
2. Adjust T251 for 0V reading on the VTVM.
   test point ≒ TP101

2. Tuned Lighting-on Adjustment

1. Puch the TUNING (+, −) button for 98MHz.
2. Tune RV103 clockwise or counterclockwise and memorize the lighting-up range of tuned indicator.
3. Adjust RV103 at the center of the lighting-up range of both turns as shown below.



3. Stereo Separation Adjustment

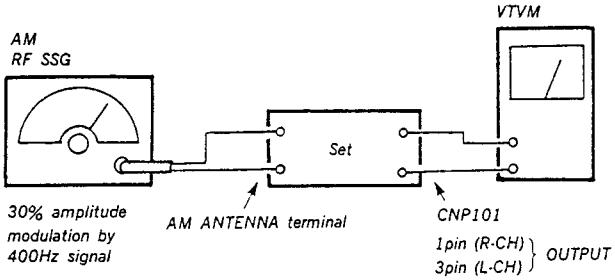
FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV101 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV101 for minimum reading.

L-CH Stereo separation : Ⓐ—Ⓑ
R-CH Stereo separation : Ⓒ—Ⓓ

The separation of both channels should be equal.
Specification : 35dB

2-2. AM SECTION ADJUSTMENTS

Setting:



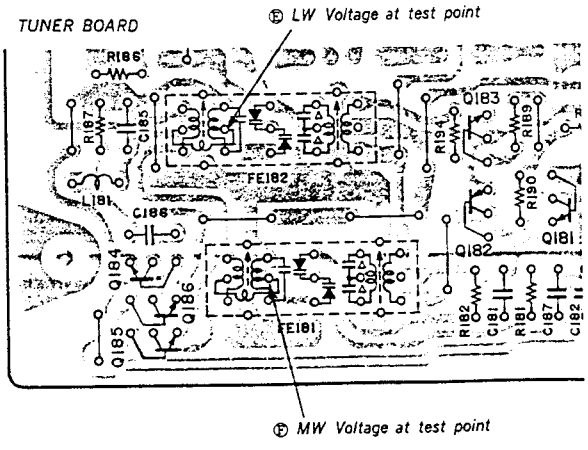
1. LW Frequency Coverage Adjustment

Frequency display in set	AEP, UK, WG model	153kHz	281kHz
	IT model	144kHz	288kHz
Adjustment part		FE182(OSC)	
Voltage at test point		VT Ⓔ 1V±0.2V	

2. MW Frequency Coverage Adjustment

Frequency display in set	AEP, UK, WG model	531kHz	1602kHz
	IT model	522kHz	1611kHz
Adjustment part		FE181(OSC)	
Voltage test point		VT Ⓕ ①V±0.2V	

Adjustment Location:



3. LW Tracking Adjustment

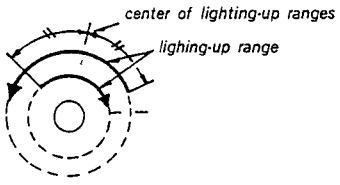
Frequency display in set	AEP, UK, WG model	153kHz
	IT model	144kHz
Adjustment part	FE182 (ANT)	
Adjustment for a maximum reading on VTVM.		

4. MW Tracking Adjustment

Frequency display in set	AEP, UK, WG model	531kHz
	IT model	522kHz
Adjustment part	FE181 (ANT)	
Adjust for a maximum reading on VTVM.		

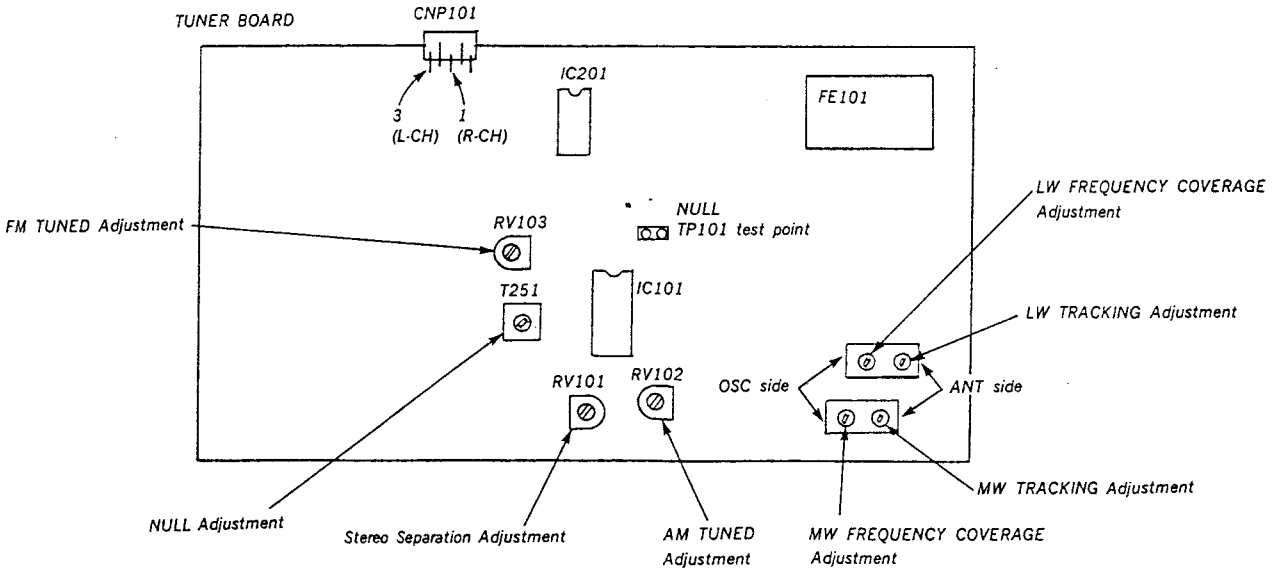
5. Tuned Lighting-on Adjustment

1. Push the TUNING (+, −) button for LW: 281kHz (AEP/UK, WG model) or 288kHz (IT model).
2. Turn RV102 clockwise or counter clockwise and memorize the lighting-up range of tuned indicator.
3. Adjust RV102 at the center of the lighting-up range of both turns as shown below.



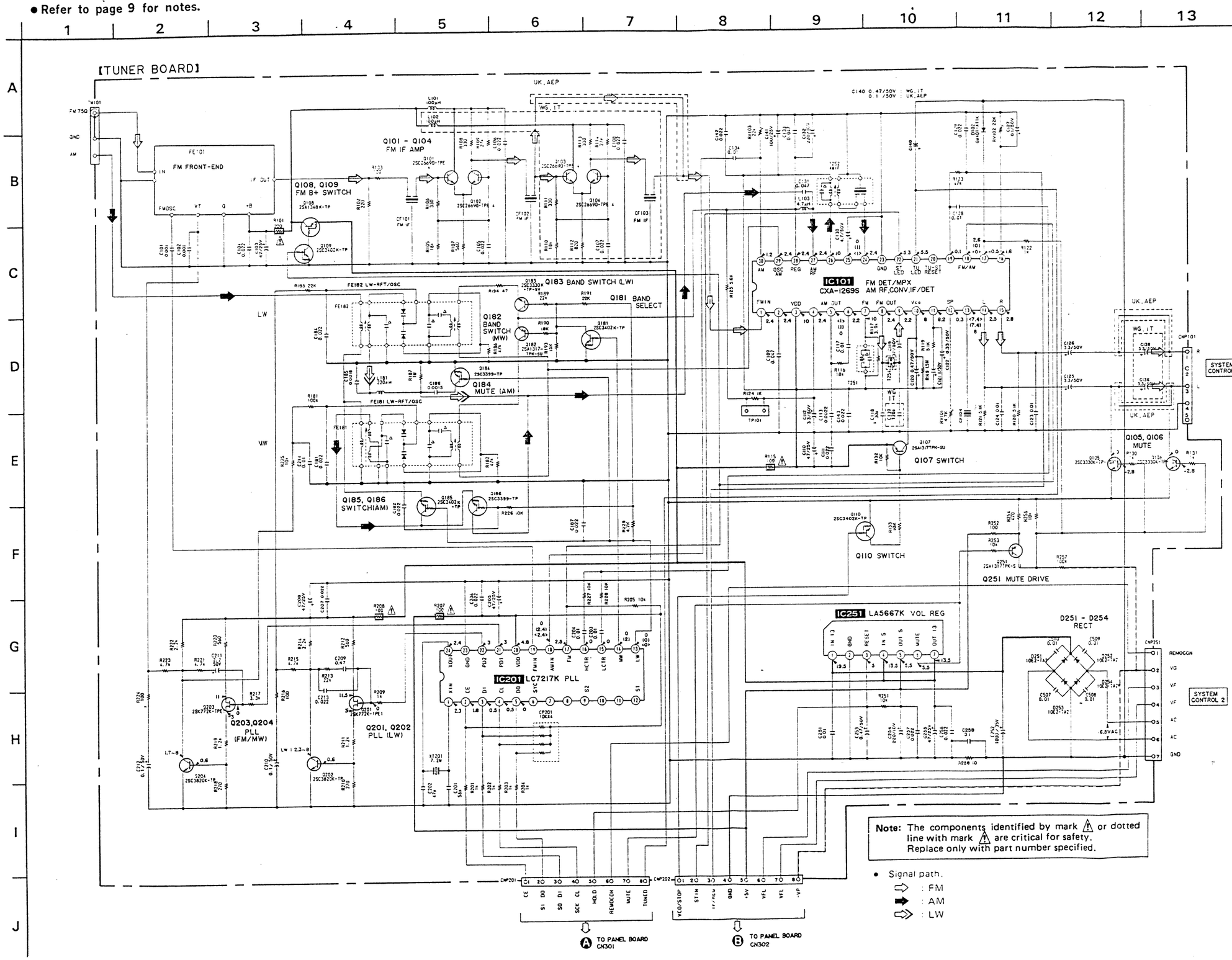
At SSG OUTPUT 68dBμ

Adjustment Location:



3-2. SCHEMFITIC DIAGRAM—TUNER SECTION—

● Refer to page 9 for notes.



Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

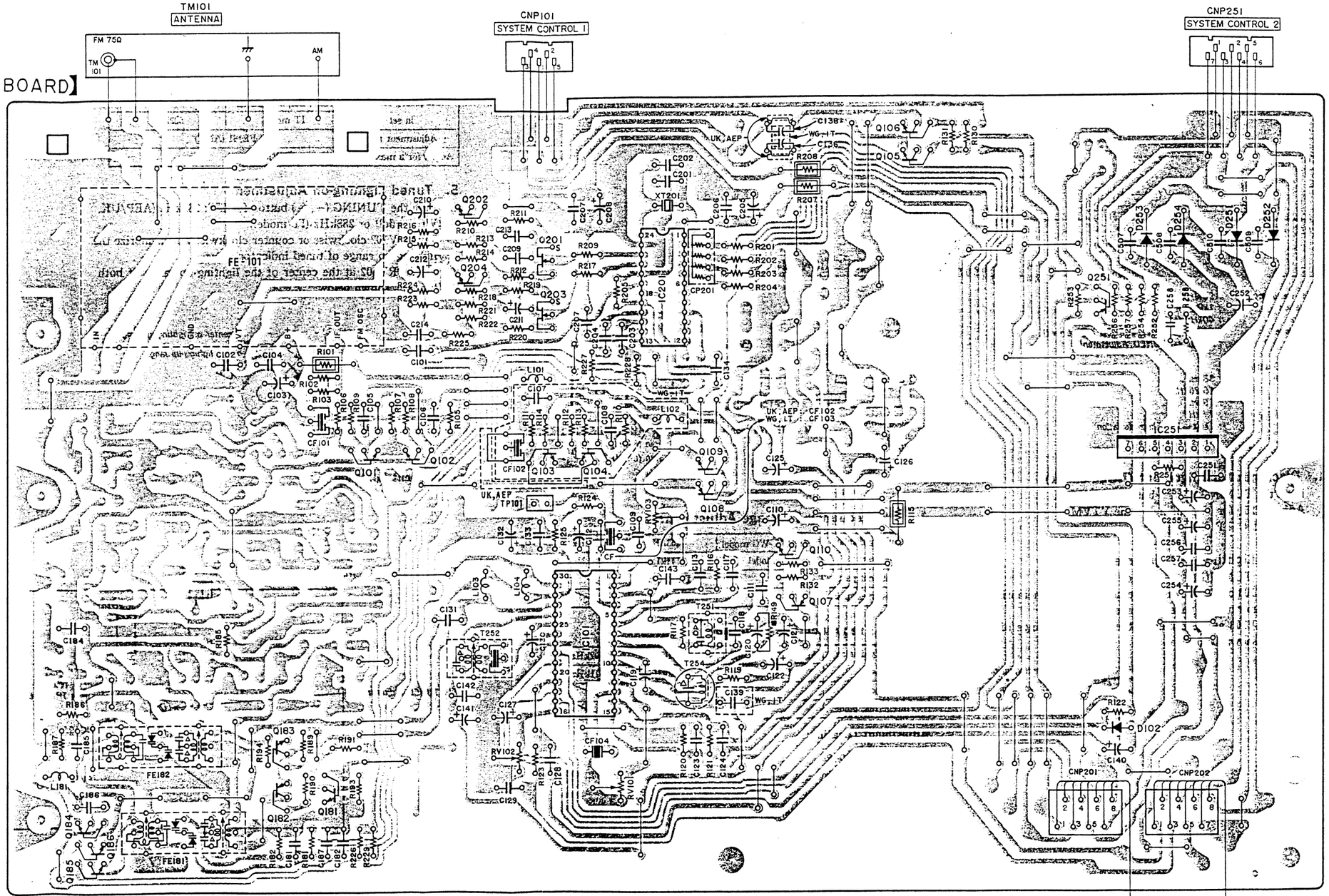
- Signal path.
  - ⇨ : FM
  - ➡ : AM
  - ⇨ : LW

• Semiconductor Location

Ref. No.	Location
D102	F-10
D251	C-11
D252	C-11
D253	C-10
D254	C-10
IC101	F-6
IC201	C-6
IC251	C-10
Q101	D-4
Q102	D-5
Q103	D-5
Q104	D-6
Q105	B-8
Q106	B-8
Q107	E-7
Q108	E-7
Q109	D-7
Q110	E-7
Q181	G-4
Q182	G-3
Q183	F-3
Q184	G-2
Q185	G-2
Q186	G-2
Q201	C-5
Q202	B-5
Q203	C-5
Q204	C-5
Q251	C-10

3-1. PRINTED WIRING BOARD—TUNER SECTION— • Refer to page 10 for Semiconductor Lead Layouts.

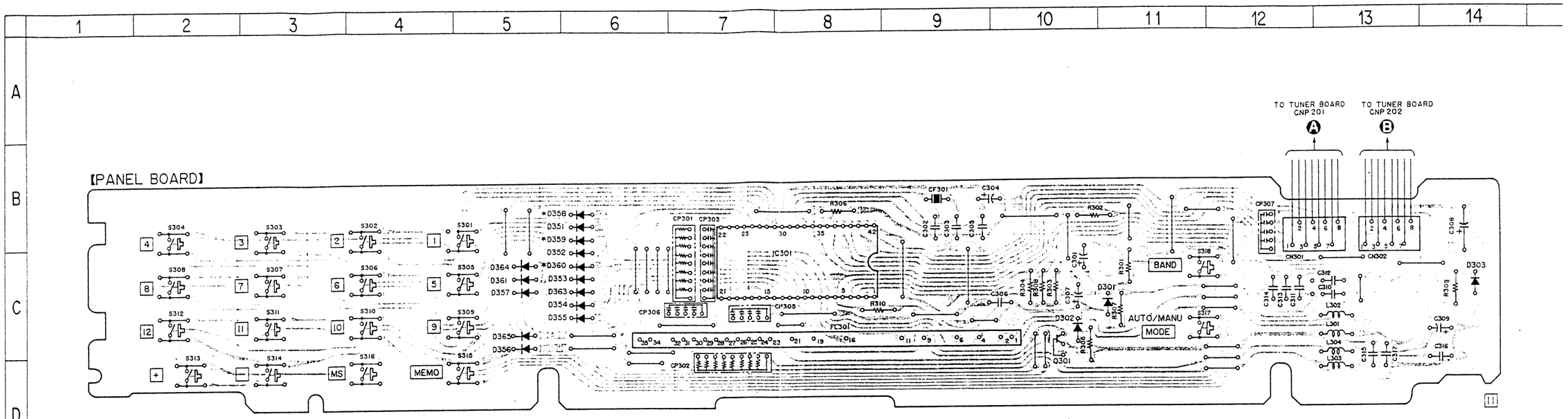
【TUNER BOARD】



Note on Mounting Diagram:

- ○—— : parts extracted from the component side.
- WG: West Germany Model
  IT: Italian Model

3-3. PRINTED WIRING BOARD—Panel section—



Note on Schematic Diagram: tuner section

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- ▬▬ : B+ bus.
- ▬ ▬ ▬ : B− bus.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
  no mark : FM
  ( ) : MW
  〈 〉 : LW
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- WG: West Germany Model
  IT: Italian Model

Note on Mounting Diagram:

- ○—— : parts extracted from the component side.

	AEP WG UK	IT
D358 A	○	○
D359 B	×	○
D360 C	×	○

- WG: West Germany Model
  IT: Italian Model

• Semiconductor Location

Ref. No.	Location
D301	C-11
D302	C-11
D303	C-13
D351	B-6
D352	C-6
D353	C-6
D354	C-6
D355	C-6
D356	C-6
D357	C-6
D358	B-6
D359	B-6
D360	C-6
D361	C-5
D363	C-6
D364	C-5
D365	C-5
IC301	C-8

Note on Schematic Diagram:

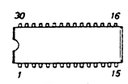
- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- Switch

Ref. No.	Switch	Position
S301	PRESET STATIONS 1	OFF
S302	PRESET STATIONS 2	OFF
S303	PRESET STATIONS 3	OFF
S304	PRESET STATIONS 4	OFF
S305	PRESET STATIONS 5	OFF
S306	PRESET STATIONS 6	OFF
S307	PRESET STATIONS 7	OFF
S308	PRESET STATIONS 9	OFF
S309	PRESET STATIONS 9	OFF
S310	PRESET STATIONS 10	OFF
S311	PRESET STATIONS 11	OFF
S312	PRESET STATIONS 12	OFF
S313	TUNING (+)	OFF
S314	TUNING (−)	OFF
S315	MEMORY	OFF
S316	MEMORY SCAN	OFF
S317	AUTO/MANUAL MODE	OFF
S318	BAND	OFF

- WG: West Germany Model
  IT: Italian Model
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.

• Semiconductor Lead Layouts

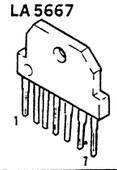
CXA1269S



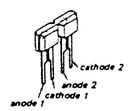
2SA1317SU
2SA1348
2SC2669
2SC3400
2SC3402
2SC3820

GMA01

LA5667



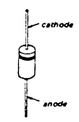
KV1236



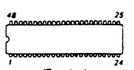
LC7217

2SC2785E

10E2



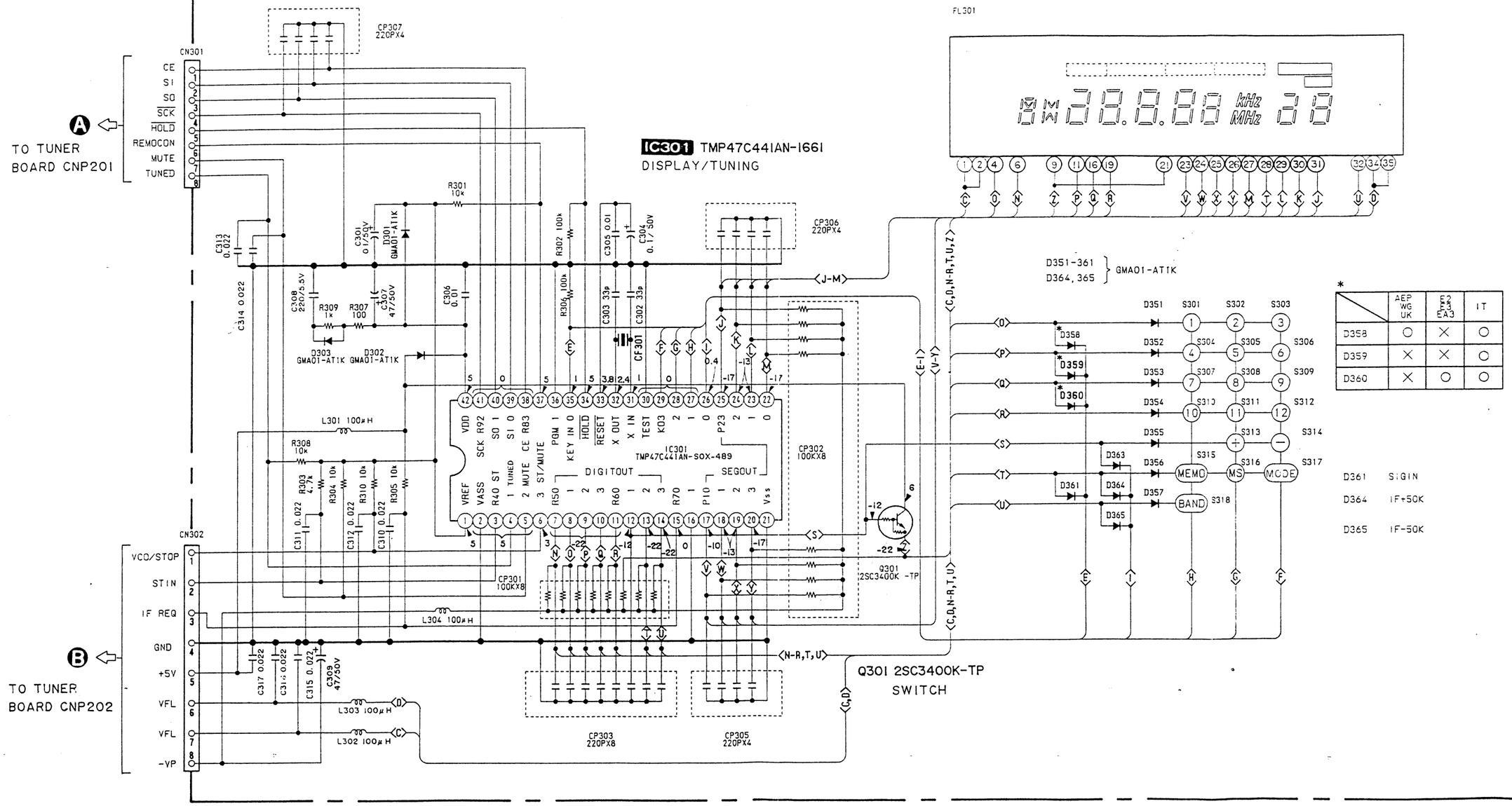
TMP47C441AN-1662



2SK772E

3-4. SCHEMATIC DIAGRAM—Panel section—

【PANEL BOARD】

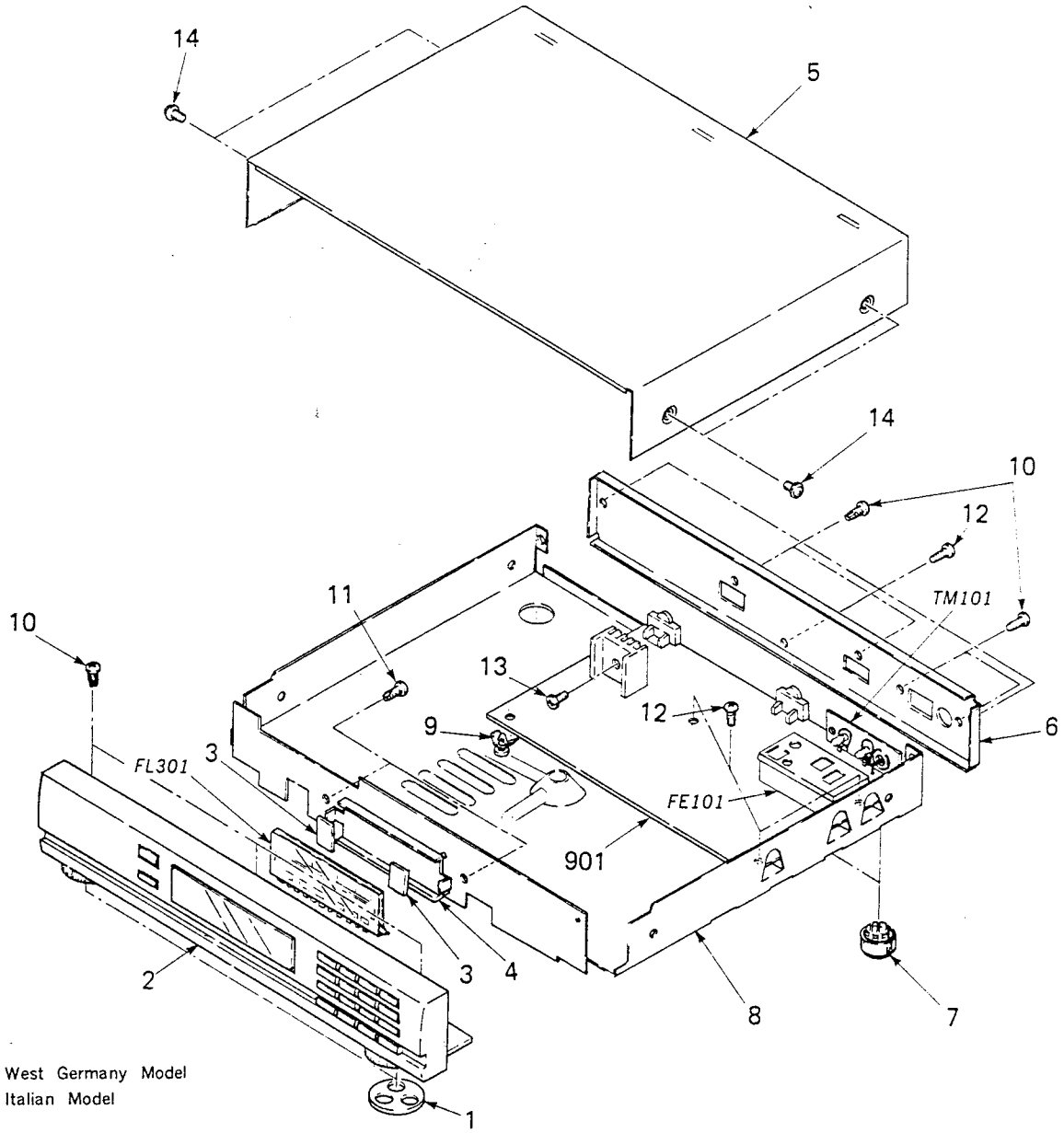


*	AEP WG UK	EEP WG UK EA3	IT
D358	○	×	○
D359	×	×	○
D360	×	○	○

SECTION 4
EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color



WG: West Germany Model
IT: Italian Model

Ref.No	Part No.	Description	Remark
1	4-921-906-01	FELT	
2	X-4924-516-1	(AEP,UK, IT) ....PANEL ASSY, FRONT	
	X-4924-518-1	(WG) ....PANEL ASSY, FRONT	
3	*4-921-941-11	CUSHION (FL)	
4	*4-923-103-01	HOLDER, FL TUBE	
5	4-924-514-31	(AEP, UK, IT) ....CASE	
	4-924-514-21	(WG) ....CASE	
6	*4-924-502-01	(AEP, UK, IT) ....PANEL, BACK	
	*4-924-502-11	(WG) ....PANEL, BACK	
7	X-4921-901-1	FOOT ASSY	
8	*4-921-903-41	CHASSIS	

Ref.No	Part No.	Description	Remark
9	*4-835-627-00	FASTENER, (A)	
10	7-685-646-79	SCREW +BVTP 3×8 TYPE N-S	
11	7-685-134-11	SCREW +PTP 2.6×8	
12	7-682-548-04	SCREW +BVTT 3×8 (S)	
13	7-685-647-79	SCREW BVTP 3×10 TYPE2 IT-3	
14	3-704-366-01	SCREW (CASE) (M3X8)	
901	*A-4351-635-A	(AEP, UK) ....MOUNTED PCB, TUNER	
	*A-4351-636-A	(WG, IT) ....MOUNTED PCB, TUNER	
FE101	1-463-963-11	FRONT END (FM 3 GANG)	
FL301	1-519-453-11	INDICATOR TUBE, FLUORESCENT	
TM101	*1-537-138-21	TERMINAL BOARD (ANT)	

SECTION 5
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

WG: West Germany Model
IT: Italian Model

Ref.No	Part No.	Description			Remark
901	*A-4351-635-A	(AEP, UK) ....MOUNTED PCB, TUNER			
901	*A-4351-636-A	(WG, IT) ....MOUNTED PCB, TUNER			
		CAPACITOR			
C101	1-102-074-00	CERAMIC	0.001MF	10%	50V
C102	1-102-074-00	CERAMIC	0.001MF	10%	50V
C103	1-124-477-11	ELECT	47MF	20%	25V
C104	1-101-005-00	CERAMIC	0.022MF		50V
C105	1-101-005-00	CERAMIC	0.022MF		50V
C106	1-101-005-00	CERAMIC	0.022MF		50V
C107	1-101-005-00	(WG, IT)....CERAMIC	0.022MF		50V
C108	1-101-005-00	(WG, IT)....CERAMIC	0.022MF		50V
C109	1-101-006-00	CERAMIC	0.047MF		50V
C110	1-124-477-11	ELECT	47MF	20%	25V
C111	1-101-005-00	CERAMIC	0.022MF		50V
C112	1-123-382-00	ELECT	3.3MF	20%	50V
C113	1-101-004-00	CERAMIC	0.01MF		50V
C117	1-130-483-00	MYLAR	0.01MF	5%	50V
C118	1-102-962-00	CERAMIC	30PF	5%	50V
C119	1-123-875-11	ELECT	10MF	20%	50V
C120	1-124-902-00	ELECT	0.47MF	20%	50V
C121	1-124-499-11	ELECT	1MF	20%	50V
C122	1-124-252-00	ELECT	0.33MF	20%	50V
C123	1-101-004-00	CERAMIC	0.01MF		50V
C124	1-101-004-00	CERAMIC	0.01MF		50V
C125	1-123-382-00	ELECT	3.3MF	20%	50V
C126	1-123-382-00	ELECT	3.3MF	20%	50V
C127	1-124-463-00	ELECT	0.1MF	20%	50V
C128	1-101-004-00	CERAMIC	0.01MF		50V
C129	1-101-005-00	CERAMIC	0.022MF		50V
C130	1-124-927-11	ELECT	4.7MF	20%	50V
C131	1-101-006-00	CERAMIC	0.047MF		50V
C132	1-124-444-00	ELECT	220MF	20%	10V
C133	1-101-006-00	CERAMIC	0.047MF		50V
C134	1-101-004-00	CERAMIC	0.01MF		50V
C136	1-123-382-00	(WG, IT)....ELECT	3.3MF	20%	50V
C138	1-123-382-00	(WG, IT)....ELECT	3.3MF	20%	50V
C139	1-162-283-31	(WG, IT)....CERAMIC	120PF	10%	50V
C140	1-124-463-00	ELECT	0.1MF	20%	50V
C140	1-124-902-00	(WG, IT)....ELECT	0.47MF	20%	50V
C141	1-124-478-11	ELECT	100MF	20%	25V
C142	1-101-005-00	CERAMIC	0.022MF		50V
C143	1-101-005-00	CERAMIC	0.022MF		50V
C181	1-101-005-00	CERAMIC	0.022MF		50V
C182	1-101-005-00	CERAMIC	0.022MF		50V
C184	1-101-005-00	CERAMIC	0.022MF		50V
C185	1-102-120-00	CERAMIC	0.0018MF	10%	50V
C186	1-161-041-00	CERAMIC	0.0015MF	10%	25V
C187	1-101-005-00	CERAMIC	0.022MF		50V
C201	1-101-884-00	CERAMIC	56PF	5%	50V
C202	1-101-880-00	CERAMIC	47PF	5%	50V
C203	1-101-004-00	CERAMIC	0.01MF		50V

Ref.No	Part No.	Description			Remark
C204	1-101-004-00	CERAMIC	0.01MF		50V
C205	1-124-477-11	ELECT	47MF	20%	25V
C206	1-101-005-00	CERAMIC	0.022MF		50V
C207	1-101-005-00	CERAMIC	0.022MF		50V
C208	1-124-477-11	ELECT	47MF	20%	25V
C209	1-136-173-00	FILM	0.47MF	5%	50V
C210	1-124-463-00	ELECT	0.1MF	20%	50V
C211	1-124-925-11	ELECT	2.2MF	20%	50V
C212	1-124-463-00	ELECT	0.1MF	20%	50V
C213	1-101-005-00	CERAMIC	0.022MF		50V
C214	1-101-004-00	CERAMIC	0.01MF		50V
C215	1-102-973-00	CERAMIC	100PF	5%	50V
C251	1-101-004-00	CERAMIC	0.01MF		50V
C252	1-126-105-11	ELECT	1000MF	20%	35V
C253	1-124-902-00	ELECT	0.47MF	20%	50V
C254	1-124-444-00	ELECT	220MF	20%	10V
C255	1-124-477-11	ELECT	47MF	20%	25V
C256	1-101-005-00	CERAMIC	0.022MF		50V
C257	1-101-005-00	CERAMIC	0.022MF		50V
C258	1-136-165-00	FILM	0.1MF	5%	50V
C301	1-124-463-00	ELECT	0.1MF	20%	50V
C302	1-162-056-00	CERAMIC	33PF	5%	50V
C303	1-162-056-00	CERAMIC	33PF	5%	50V
C304	1-124-463-00	ELECT	0.1MF	20%	50V
C305	1-161-379-00	CERAMIC	0.01MF	30%	16V
C306	1-161-379-00	CERAMIC	0.01MF	30%	16V
C307	1-124-910-11	ELECT	47MF	20%	50V
C308	1-125-486-11		220MF		5.5V
C309	1-124-910-11	ELECT	47MF	20%	50V
C310	1-101-005-00	CERAMIC	0.022MF		50V
C311	1-101-005-00	CERAMIC	0.022MF		50V
C312	1-101-005-00	CERAMIC	0.022MF		50V
C313	1-101-005-00	CERAMIC	0.022MF		50V
C314	1-101-005-00	CERAMIC	0.022MF		50V
C315	1-101-005-00	CERAMIC	0.022MF		50V
C316	1-101-005-00	CERAMIC	0.022MF		50V
C317	1-101-005-00	CERAMIC	0.022MF		50V
C507	1-101-004-00	CERAMIC	0.01MF		50V
C508	1-101-004-00	CERAMIC	0.01MF		50V
C509	1-101-004-00	CERAMIC	0.01MF		50V
C510	1-101-004-00	CERAMIC	0.01MF		50V
CF101	1-567-389-11	FILTER, CERAMIC			
CF102	1-567-389-11	FILTER, CERAMIC			
CF103	1-567-389-11	(WG, IT)....FILER, CERAMIC			
CF104	1-577-075-11	OSCILLATOR, CERAMIC			
CF301	1-577-029-11	VIBRATOR, CERAMIC			
CNP101	*1-566-856-11	SOCKET, CONNECTOR 5P			
CNP201	*1-566-168-11	HOUSING, CONNECTOR 8P			
CNP202	*1-566-168-11	HOUSING, CONNECTOR 8P			
CNP251	1-566-857-11	SOCKET, CONNECTOR 7P			
CNP301	*1-566-168-11	HOUSING, CONNECTOR 8P			

Ref.No	Part No.	Description	Remark
CNP302	*1-566-168-11	HOUSING, CONNECTOR 8P	
CP201	1-233-125-11	COMPOSITION CIRCUIT BLOCK	
CP301	1-233-140-11	COMPOSITION CIRCUIT BLOCK	
CP302	1-233-140-11	COMPOSITION CIRCUIT BLOCK	
CP303	1-233-151-	COMPOSITION CIRCUIT BLOCK	
CP305	1-233-150-	COMPOSITION CIRCUIT BLOCK	
CP306	1-233-150-	COMPOSITION CIRCUIT BLOCK	
CP307	1-233-150-	COMPOSITION CIRCUIT BLOCK	
D102	1-806-937-11	DIODE GMA01	
D251	8-719-200-02	DIODE 10E2	
D252	8-719-200-02	DIODE 10E2	
D253	8-719-200-02	DIODE 10E2	
D254	8-719-200-02	DIODE 10E2	
D301	1-806-937-11	DIODE GMA01	
D302	1-806-937-11	DIODE GMA01	
D303	1-806-937-11	DIODE GMA01	
D351	1-806-937-11	DIODE GMA01	
D352	1-806-937-11	DIODE GMA01	
D353	1-806-937-11	DIODE GMA01	
D354	1-806-937-11	DIODE GMA01	
D355	1-806-937-11	DIODE GMA01	
D356	1-806-937-11	DIODE GMA01	
D357	1-806-937-11	DIODE GMA01	
D358	1-806-937-11	DIODE GMA01	
D359	1-806-937-11	(IT)....DIODE GMA01	
D360	1-806-937-11	(IT)....DIODE GMA01	
D361	1-806-937-11	DIODE GMA01	
D363	1-806-937-11	DIODE GMA01	
D364	1-806-937-11	DIODE GMA01	
D365	1-806-937-11	DIODE GMA01	
FE101	1-463-963-11	FRONT END (FM 3 GANG)	
FE181	1-235-936-11	ENCAPSULATED COMPONENT	
FE182	1-236-178-11	RF BLOCK, LW	
FL301	1-519-453-11	INDICATOR TUBE, FLUORESCENT	
IC101	8-759-805-50	IC CXA1269S	
IC201	8-759-820-10	IC LC7217	
IC251	8-759-820-09	IC LA5667	
IC301	8-759-230-49	IC TMP47C441AN-1662	
L101	1-410-564-41	INDUCTOR	
L102	1-410-564-41	(WG, IT)....INDUCTOR 100UH	
L103	1-408-920-00	INDUCTOR	
L181	1-410-568-21	INDUCTOR	
L301	1-410-564-21	INDUCTOR	
L302	1-410-564-21	INDUCTOR	
L303	1-410-564-21	INDUCTOR	
L304	1-410-564-21	INDUCTOR	
Q101	8-729-266-93	TRANSISTOR 2SC2669	
Q102	8-729-266-93	TRANSISTOR 2SC2669	
Q103	8-729-266-93	(WG, IT)....TRANSISTOR 2SC2669	
Q104	8-729-266-93	(WG, IT)....TRANSISTOR 2SC2669	
Q105	8-729-178-55	TRANSISTOR 2SC2785-E	
Q106	8-729-178-55	TRANSISTOR 2SC2785-E	
Q107	8-729-178-55	TRANSISTOR 2SC2785-E	
Q108	9-986-159-01	TRANSISTOR 2SA1348	
Q109	8-729-806-28	TRANSISTOR 2SC3402	
Q110	8-729-806-28	TRANSISTOR 2SC3402	
Q181	8-729-806-28	TRANSISTOR 2SC3402	
Q182	8-729-820-10	TRANSISTOR 2SA1317-SU	
Q183	8-729-178-55	TRANSISTOR 2SC2785-E	
Q184	8-729-806-28	TRANSISTOR 2SC3402	
Q185	8-729-806-28	TRANSISTOR 2SC3402	
Q186	8-729-806-28	TRANSISTOR 2SC3402	
Q201	8-729-820-12	TRANSISTOR 2SK772-E	
Q202	8-729-820-13	TRANSISTOR 2SC3820	
Q203	8-729-820-12	TRANSISTOR 2SK772-E	
Q204	8-729-820-13	TRANSISTOR 2SC3820	
Q251	8-729-820-10	TRANSISTOR 2SA1317	
Q301	8-729-806-34	TRANSISTOR 2SC3400	

RESISTOR

Ref.No	Part No.	Description				Remark
R101	⚠1-247-704-11	CARBON	220	5%	1/4W	F
R103	1-249-406-11	CARBON	120	5%	1/4W	
R105	1-249-432-11	CARBON	18K	5%	1/4W	
R106	1-249-411-11	CARBON	330	5%	1/4W	
R107	1-249-414-11	CARBON	560	5%	1/4W	
R108	1-249-411-11	CARBON	330	5%	1/4W	
R109	1-249-434-11	CARBON	27K	5%	1/4W	
R110	1-249-432-11	(WG,IT)....CARBON	18K	5%	1/4W	
R111	1-249-411-11	(WG,IT)....CARBON	330	5%	1/4W	
R112	1-249-416-11	(WG,IT)....CARBON	820	5%	1/4W	
R113	1-249-411-11	(WG,IT)....CARBON	330	5%	1/4W	
R114	1-249-434-11	(WG,IT)....CARBON	27K	5%	1/4W	
R115	⚠1-247-700-11	CARBON	100	5%	1/4W	F
R116	1-249-432-11	CARBON	18K	5%	1/4W	
R117	1-249-424-11	CARBON	3.9K	5%	1/4W	
R119	1-215-438-00	CARBON	5.1K	5%	1/4W	
R120	1-215-438-00	CARBON	5.1K	5%	1/4W	
R121	1-215-438-00	CARBON	5.1K	5%	1/4W	
R122	1-249-417-11	CARBON	1K	5%	1/4W	
R123	1-249-437-11	CARBON	47K	5%	1/4W	
R124	1-249-417-11	CARBON	1K	5%	1/4W	
R125	1-249-426-11	CARBON	5.6K	5%	1/4W	
R130	1-249-417-11	CARBON	1K	5%	1/4W	
R131	1-249-417-11	CARBON	1K	5%	1/4W	
R132	1-249-429-11	CARBON	10K	5%	1/4W	
R133	1-249-429-11	CARBON	10K	5%	1/4W	
R149	1-249-747-	CARBON	1.5M	5%	1/4W	
R181	1-249-441-11	CARBON	100K	5%	1/4W	
R182	1-249-437-11	CARBON	47K	5%	1/4W	
R185	1-249-433-11	CARBON	22K	5%	1/4W	
R186	1-249-437-11	CARBON	47K	5%	1/4W	
R187	1-215-493-00	CARBON	1M	5%	1/4W	
R189	1-249-433-11	CARBON	22K	5%	1/4W	
R190	1-249-432-11	CARBON	18K	5%	1/4W	
R191	1-249-433-11	CARBON	22K	5%	1/4W	
R193	1-249-431-11	CARBON	15K	5%	1/4W	
R194	1-249-401-11	CARBON	47	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-417-11	CARBON	1K	5%	1/4W	
R204	1-249-417-11	CARBON	1K	5%	1/4W	
*R205	1-249-425-11	CARBON	4.7K	5%	1/4W	
R207	⚠1-247-696-11	CARBON	47	5%	1/4W	F
R208	⚠1-247-700-11	CARBON	100	5%	1/4W	F
R209	1-249-425-11	CARBON	4.7K	5%	1/4W	
R210	1-249-410-11	CARBON	270	5%	1/4W	
R211	1-249-418-11	CARBON	1.2K	5%	1/4W	
R212	1-249-414-11	CARBON	560	5%	1/4W	
R213	1-249-433-11	CARBON	22K	5%	1/4W	
R214	1-249-421-11	CARBON	2.2K	5%	1/4W	
R215	1-249-425-11	CARBON	4.7K	5%	1/4W	
R216	1-249-405-11	CARBON	100	5%	1/4W	
R217	1-249-423-11	CARBON	3.3K	5%	1/4W	
R218	1-249-410-11	CARBON	270	5%	1/4W	
R219	1-249-418-11	CARBON	1.2K	5%	1/4W	
R220	1-249-414-11	CARBON	560	5%	1/4W	
R221	1-249-425-11	CARBON	4.7K	5%	1/4W	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No	Part No.	Description			Remark
R222	1-249-421-11	CARBON	2.2K	5%	1/4W
R223	1-249-425-11	CARBON	4.7K	5%	1/4W
R224	1-249-405-11	CARBON	100	5%	1/4W
R225	1-249-429-11	CARBON	10K	5%	1/4W
R226	1-249-429-11	CARBON	10K	5%	1/4W
R227	1-249-429-11	CARBON	10K	5%	1/4W
R228	1-249-429-11	CARBON	10K	5%	1/4W
R229	1-249-425-11	CARBON	4.7K	5%	1/4W
R251	1-249-429-11	CARBON	10K	5%	1/4W
R252	1-249-405-11	CARBON	100	5%	1/4W
R253	1-249-429-11	CARBON	10K	5%	1/4W
R254	1-249-413-11	CARBON	470	5%	1/4W
R256	1-249-429-11	CARBON	10K	5%	1/4W
R257	1-249-441-11	CARBON	100K	5%	1/4W
R258	1-249-393-11	CARBON	10	5%	1/4W
R301	1-249-429-11	CARBON	10K	5%	1/4W
R302	1-249-441-11	CARBON	100K	5%	1/4W
R303	1-249-425-11	CARBON	4.7K	5%	1/4W
R304	1-249-429-11	CARBON	10K	5%	1/4W
R305	1-249-429-11	CARBON	10K	5%	1/4W
R306	1-249-441-11	CARBON	100K	5%	1/4W
R307	1-249-405-11	CARBON	100	5%	1/4W
R308	1-249-429-11	CARBON	10K	5%	1/4W
R309	1-249-417-11	CARBON	1K	5%	1/4W
R310	1-249-429-11	CARBON	10K	5%	1/4W

RV101	1-228-993-00	RES, ADJ, CARBON 4.7K
RV102	1-228-995-00	RES, ADJ, CARBON 22K
RV103	1-228-995-00	RES, ADJ, CARBON 22K
S301	1-554-303-21	SWITCH, KEY BOARD (1)
S302	1-554-303-21	SWITCH, KEY BOARD (2)
S303	1-554-303-21	SWITCH, KEY BOARD (3)
S304	1-554-303-21	SWITCH, KEY BOARD (4)
S305	1-554-303-21	SWITCH, KEY BOARD (5)
S306	1-554-303-21	SWITCH, KEY BOARD (6)
S307	1-554-303-21	SWITCH, KEY BOARD (7)
S308	1-554-303-21	SWITCH, KEY BOARD (8)
S309	1-554-303-21	SWITCH, KEY BOARD (9)
S310	1-554-303-21	SWITCH, KEY BOARD (10)
S311	1-554-303-21	SWITCH, KEY BOARD (11)
S312	1-554-303-21	SWITCH, KEY BOARD (12)
S313	1-554-303-21	SWITCH, KEY BOARD (+)
S314	1-554-303-21	SWITCH, KEY BOARD (−)
S315	1-554-303-21	SWITCH, KEY BOARD (MEMO)
S316	1-554-303-21	SWITCH, KEY BOARD (MS)
S317	1-554-303-21	SWITCH, KEY BOARD (AUTO/MANU, MODE)
S318	1-554-303-21	SWITCH, KEY BOARD (BAND)
T251	1-404-788-11	TRANSFORMER, DISCRIMINATOR(FM)
T252	1-404-713-11	TRANSFORMER, IF
TM101	*1-537-138-21	TERMINAL BOARD (ANT)
TP101	*1-560-060-00	PIN, CONNECTOR 2P
XT201	1-567-767-11	VIBRATOR, CRYSTAL

ACCESSORIES AND PACKING MATERIALS

Part No.	Description
3-312-970-00	SHEET PROTECTION

9-953-118-11

Sony Corporation
Audio Group

English
88B0455-1
Printed in Japan
© 1988. 2
Published by A/V Engineering Service Dept.

ST-D50L

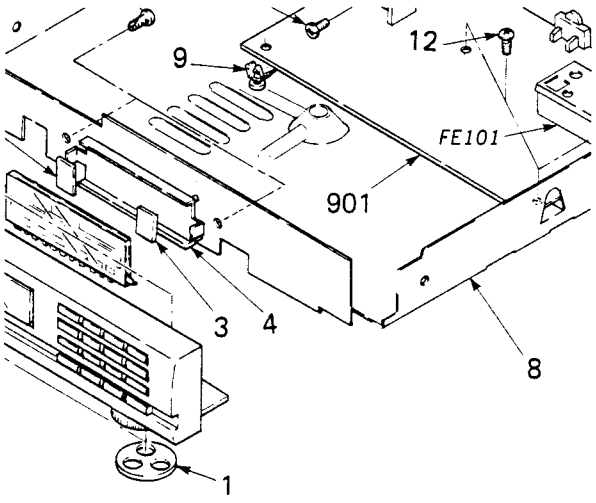
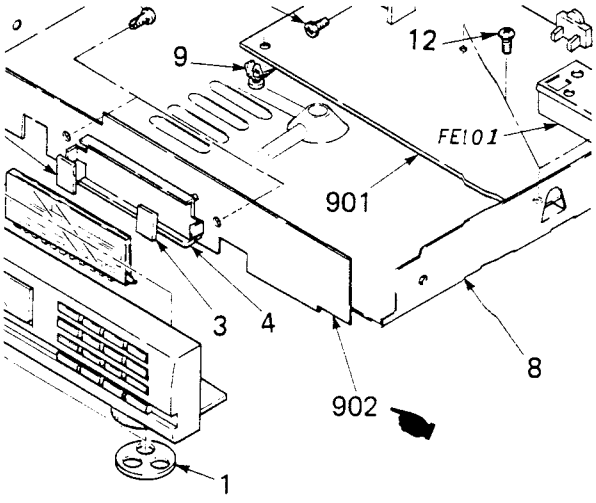
SONY
SERVICE MANUAL

AEP Model
UK Model

CORRECTION-1

File this correction with the service manual.

☛: Corrected portions

Page	INCORRECT	CORRECT
13	 Ref.No Part No. Description Remark 901 *A-4351-635-A (AEP, UK) ....MOUNTED PCB, TUNER *A-4351-636-A (WG, IT) ....MOUNTED PCB, TUNER FE101 1-463-963-11 FRONT END (FM 3 GANG) FL301 1-519-453-11 INDICATOR TUBE, FLUORESCENT TM101 *1-537-138-21 TERMINAL BOARD (ANT)	 Ref.No Part No. Description Remark 901 *A-4351-635-A (AEP, UK) ....MOUNTED PCB, TUNER *A-4351-636-A (WG, IT) ....MOUNTED PCB, TUNER 902 *1-626-248-12 PC BOARD, PANEL ☛ FE101 1-463-963-11 FRONT END (FM 3 GANG) FL301 1-519-453-11 INDICATOR TUBE, FLUORESCENT TM101 *1-537-138-21 TERMINAL BOARD (ANT)
14	Ref.No Part No. Description Remark 901 *A-4351-635-A (AEP, UK) ....MOUNTED PCB, TUNER 901 *A-4351-636-A (WG, IT) ....MOUNTED PCB, TUNER CAPACITOR C101 1-102-074-00 CERAMIC 0.001MF 10% 50V C102 1-102-074-00 CERAMIC 0.001MF 10% 50V	Ref.No Part No. Description Remark 901 *A-4351-635-A (AEP, UK) ....MOUNTED PCB, TUNER 901 *A-4351-636-A (WG, IT) ....MOUNTED PCB, TUNER 902 *1-626-248-12 PC BOARD, PANEL ☛ CAPACITOR C101 1-102-074-00 CERAMIC 0.001MF 10% 50V C102 1-102-074-00 CERAMIC 0.001MF 10% 50V

English
88G0455-1
Printed in Japan

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Published by A/V Engineering Service Dept.

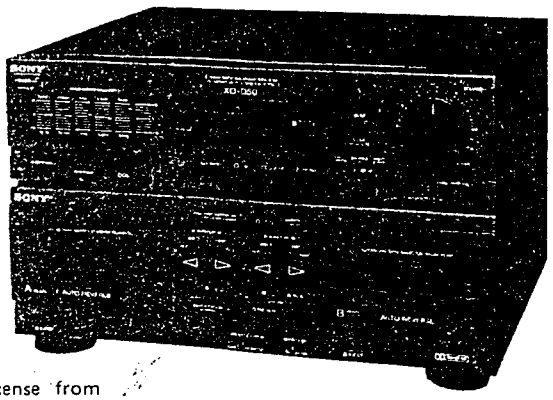
9-953-118-91

Sony Corporation
Audio Group

DXA-D50

SERVICE MANUAL

AEP Model
UK Model



This set is the deck amplifier Section in XO-D50.

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SPECIFICATION

Amplifier section

Continuous RMS power output (Continental European model)
50W + 50W (at 1kHz, 5% T.H.D.)
Music power output (Continental European model)
85W + 85W (at 1kHz, 5% T.H.D.)
Peak music power output (model for other countries)
510W

Inputs

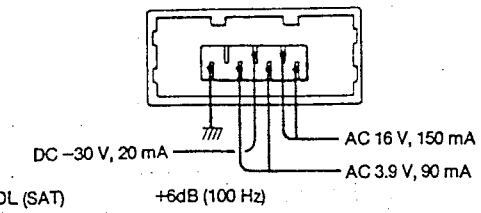
	Jack type	Sensitivity	Impedance
PHONO IN	Phono	2mV	50kohms
VIDEO/DAT	Phono	150mV	50kohms
CD	Phono	150mV	20kohms
MIC	Phone	2mV	20kohms

Outputs

	Jack type	Voltage	Impedance
VIDEO/DAT	Phono	150mV	470ohms
SURROUND speaker	Phono	Accepts speakers of 6ohms to 16ohms	
HEADPHONES	Stereo phone	Accepts headphones of 8ohms or more	

SYSTEM CONTROL connector

SYSTEM CONTROL 2: 7-pin



Model Name Using Similar Mechanism	New
Tape Transport Mechanism Type	DECK A: TCM-170RA1
	DECK B: TCM-170RB1

Cassette deck section

Recording system 4-track 2-channel stereo
Frequency response
DOLBY NR OFF (DIN)
With TYPE II cassette (Sony UX-S)
40 to 14,000Hz ± 3 dB
With TYPE I cassette (Sony HF-S)
40 to 13,000 Hz ± 3 dB
Wow and flutter 0.1% WRMS (NAB)
0.2% (DIN)

General

Power requirements
Continental European model: 220 VAC (240 VAC, adjustable by authorized Sony personnel), 50/60 Hz
Power consumption
Continental European model: 110W
AC outlet 2 Unswitched, total 100W max.
Dimensions Approx. 355 × 220 × 325 mm (w/h/d) (14 × 8⅝ × 12¹³/₁₆ inches) Incl. projecting parts and controls
Weight Approx. 7.8 kg (17 lb 3 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

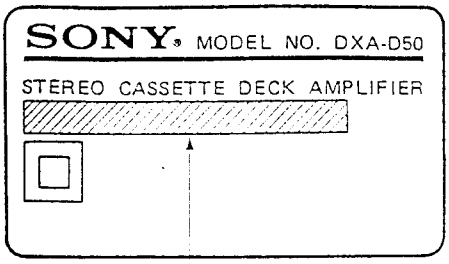
STEREO CASSETTE DECK AMPLIFIER

SONY®

MICROFILM

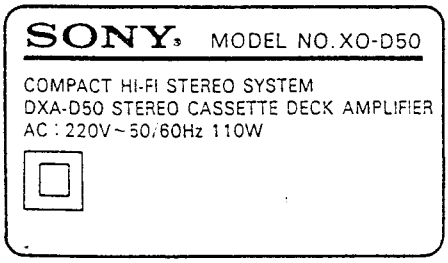
SECTION 1
GENERAL

1-1. MODEL IDENTIFICATION
—Specification Label—



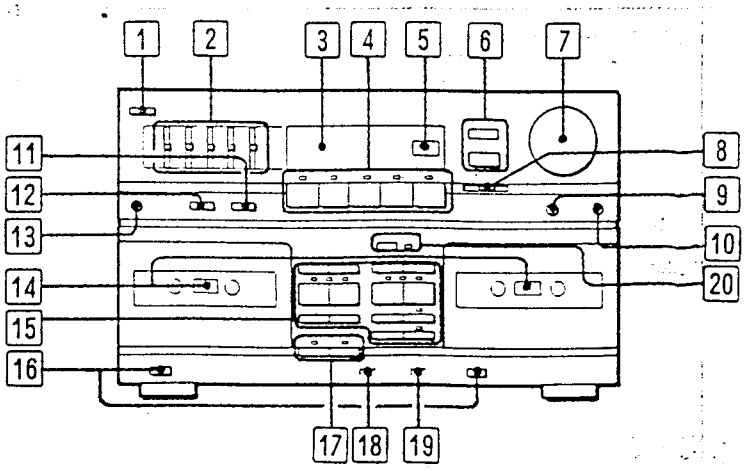
AEP model: AC : 220V ~ 50/60Hz 110W
UK model: AC : 240V ~ 50/60Hz 240W

WEST GERMANY model



1-2. PARTS IDENTIFICATION

Deck Amplifer



SECTION 3
ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in this service manual.
The adjustments should be performed for both L-CH and R-CH.

- Set the TAPE switches according to the tape as follows.

Tape	Tape Switch
CS-17	TYPE I
CS-26	TYPE II
CS-42	TYPE IV

- Switches and controls should be set as follows unless otherwise specified.
  DOLBY NR switch: OFF
- Standard Record:
  Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

Standard Input Level

INPUT terminal	LINE IN
source impedance	10kΩ
input level	0.25V (−10dB)

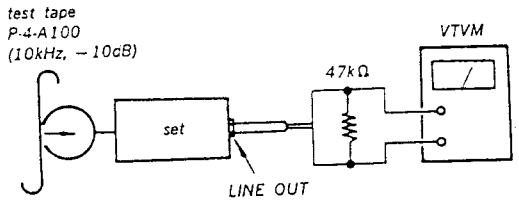
Standard Output Level

OUTPUT terminal	LINE OUT
load impedance	47kΩ
output level	0.435V (−5dB)

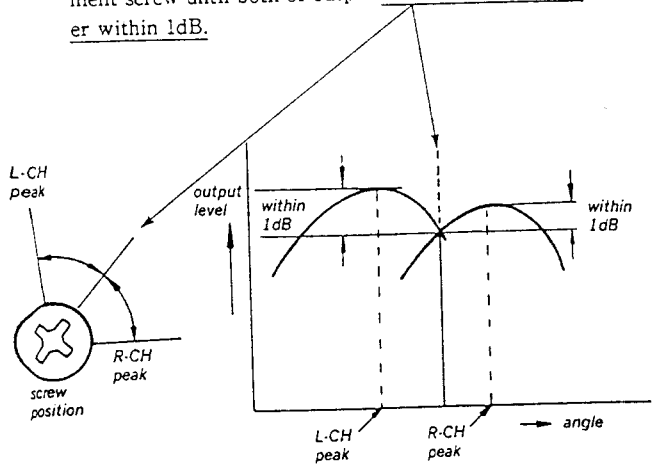
3-1. Record/playback Head Azimuth Adjustment

Procedure:

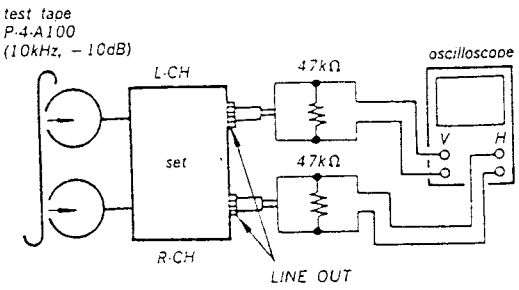
1. Mode: playback

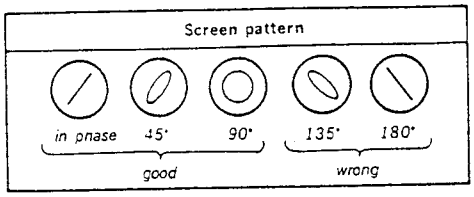


2. Turn the adjustment screw for the maximum output levels. If these levels do not match, turn the adjustment screw until both of output levels match togerther within 1dB.



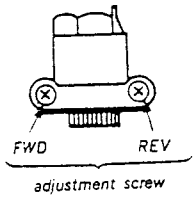
3. Phase Check
   Mode: playback





4. Repeat steps 1—3 in REV playback mode.
5. After the adjustment, lock the screws with locking compound.

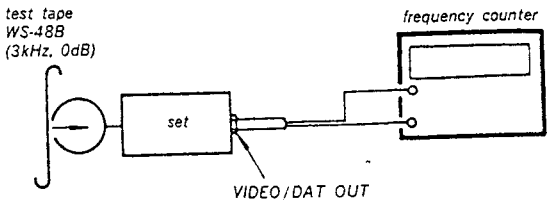
Adjustment Location:



3-2. Tape Speed Adjustment DECK A DECK B

Procedure:

Mode: playback



(High speed adjustment)

1. Playback WS-48B (Tape center portion) in High speed mode.
2. Adjust the deck A (H), deck B (H) so that at this time the frequency counter reads 5960Hz ±60Hz.

(Normal speed adjustment)

1. Playback WS-48B (Tape center portion) in Normal speed mode.
2. Adjustment the deck A (L), deck B (L) so that at this time the frequency counter reads 2960 ±30Hz.

Frequency difference between the beginning and the end of the tape should be within 0.23%.

Amplifier section

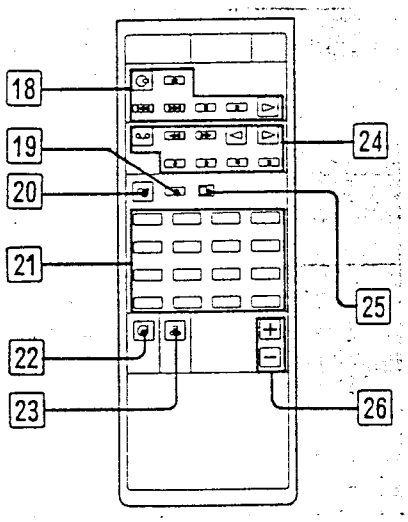
[1] POWER switch
[2] 5 BAND GRAPHIC EQUALIZER controls
[3] POWER LEVEL METER
[4] Function selectors and indicators
[5] Remote sensor
[6] WM POSITION button
[7] VOLUME control
[8] BALANCE control
[9] MIC (microphone) LEVEL control
[10] MIC (microphone) jack (phone jack)
[11] DOL (dynamic optimum loudness) button
[12] SURROUND button : AEP, WEST GERMANY
[13] HEADPHONES jack (stereo phone jack)

Cassette deck section

[14] Cassette holders
[15] Tape operation buttons
- ◀◀ Leftward fast winding
- ▶▶ Rightward fast winding
- ◁ Reverse play
- ▷ Forward
- ■ Stop
- ❙❙ PAUSE
- ○ REC MUTE
- REC (Corresponding to ● on remote commander)

[16] ⏏ EJECT buttons
[17] DUBBING speed select buttons and indicators
[18] DIRECTION MODE selectors
[19] DOLBY NR* (Noise Reduction) switch
[20] Tape COUNTER and RESET button

Remote commander



[18] CD player operation buttons
[19] BAND selector
[20] TUNER button
[21] Preset tuning buttons (for tuner)/direct music selection buttons (for CD player)
[22] PHONO button
[23] VIDEO/DAT button
[24] TAPE deck operation buttons
[25] TUNER/CD selector
[26] VOLUME +/– buttons

SECTION 2
MECHANICAL ADJUSTMENTS

PRECAUTION

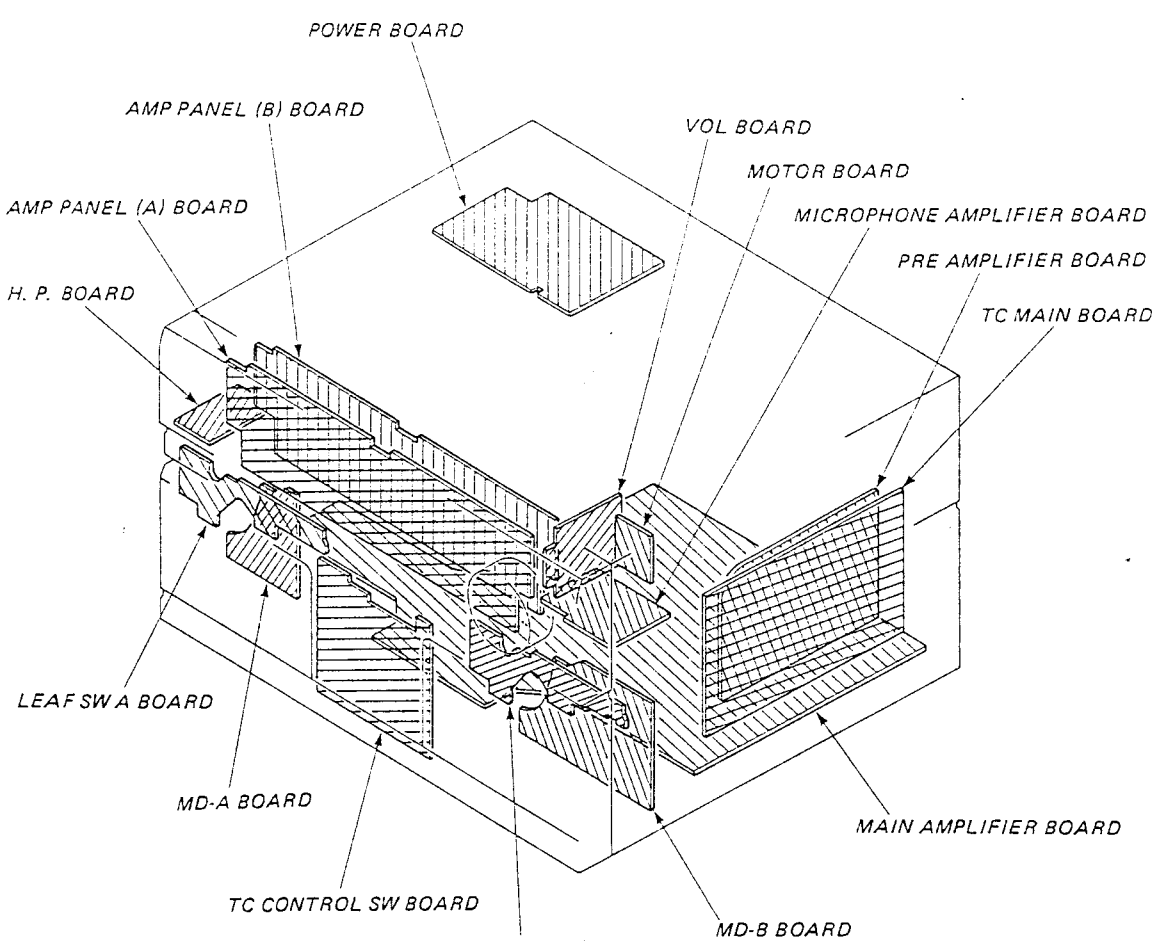
1. Clean the following parts with a denatured-alxohol-moistened swab:
   Record/playback head — pinch roller
   erase head — rubber belts
   capstan — idlers
2. Demagnetize the record/playback head with a head demagnetizer.
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.

2-1. Torque Measurement

Mode	Torque Motor	Torque
FWD	CQ-102C	30—70g · cm 0.41—0.97oz · inch
FWD back tension	CQ-102C	2—6g · cm 0.03—0.08oz · inch
REV	CQ-102RB	30—70g · cm 0.41—0.97oz · inch
REV back tension	CQ-102RB	2—6oz · cm 0.03—0.08oz · inch
FF, REW	CQ-201B	90—160g · cm 1.25—2.22oz · inch

SECTION 4
DIAGRAMS

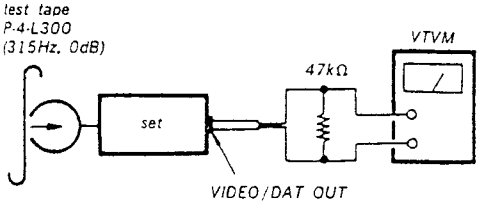
4-1. CIRCUIT BOARDS LOCATION



3-3. Playback Level Adjustment DECK A DECK B

Procedure:

Mode: playback



Adjustment the RV41-A (L-ch), RV61-A (R-ch) of Deck A and RV41-B (L-ch), RV61-B (R-ch) of Deck B.

Specification:

VIDEO/DAT OUT LEVEL: 0.44 to 0.55V (−3 to −5dB)

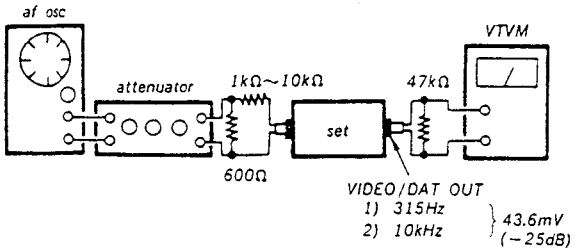
Level difference between channels: less than 2dB

Check that the VIDEO/DAT OUT level does not change in playback mode while changing the mode from playback to stop several times.

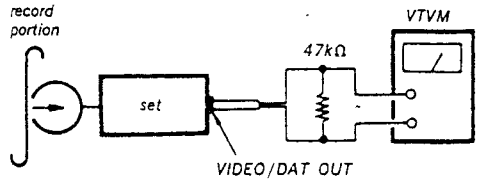
3-4. Record Bias Adjustment DECK B

Proocedure:

1. Mode: record monitor



2. Mode: playback



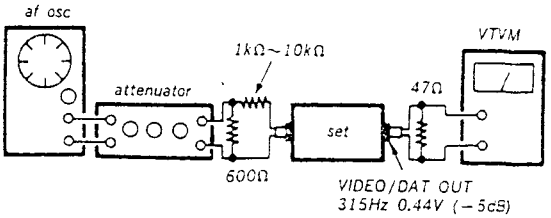
Playback the tape recorded in step 1.

Confirm that the VIDEO/DAT OUT level of 10kHz signal is 0 ±1dB relative to that of 315Hz. If not, adjust the RV42 (L-ch), RV62 (R-ch) and repeat steps 1 and 2.

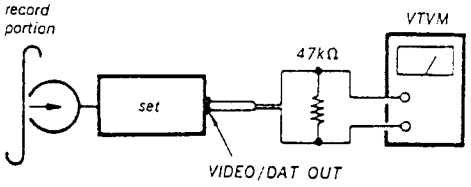
3-5. Record Level Adjustment DECK B

Procedure:

1. Mode: record monitor



2. Mode: playback



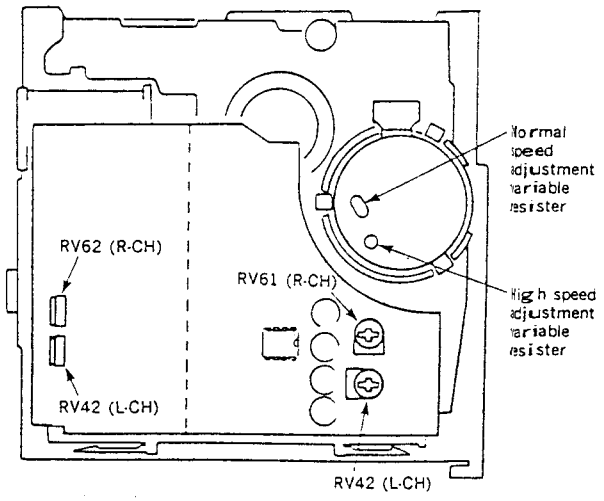
Adjust RV101 (L-CH), RV201 (R-CH).

Specification:

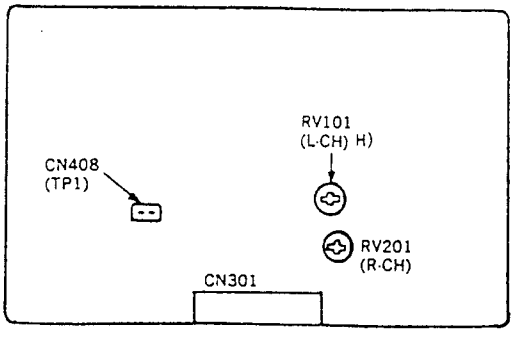
VIDEO/DAT OUT level: 0.41 to 0.46V (−5.5 to −4.5dB)

Adjustment Location:

—MD board—



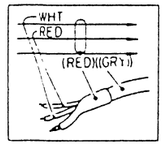
—TC MAIN board—



4-2. PRINTED WIRING BOARD —AUDIO SECTION—

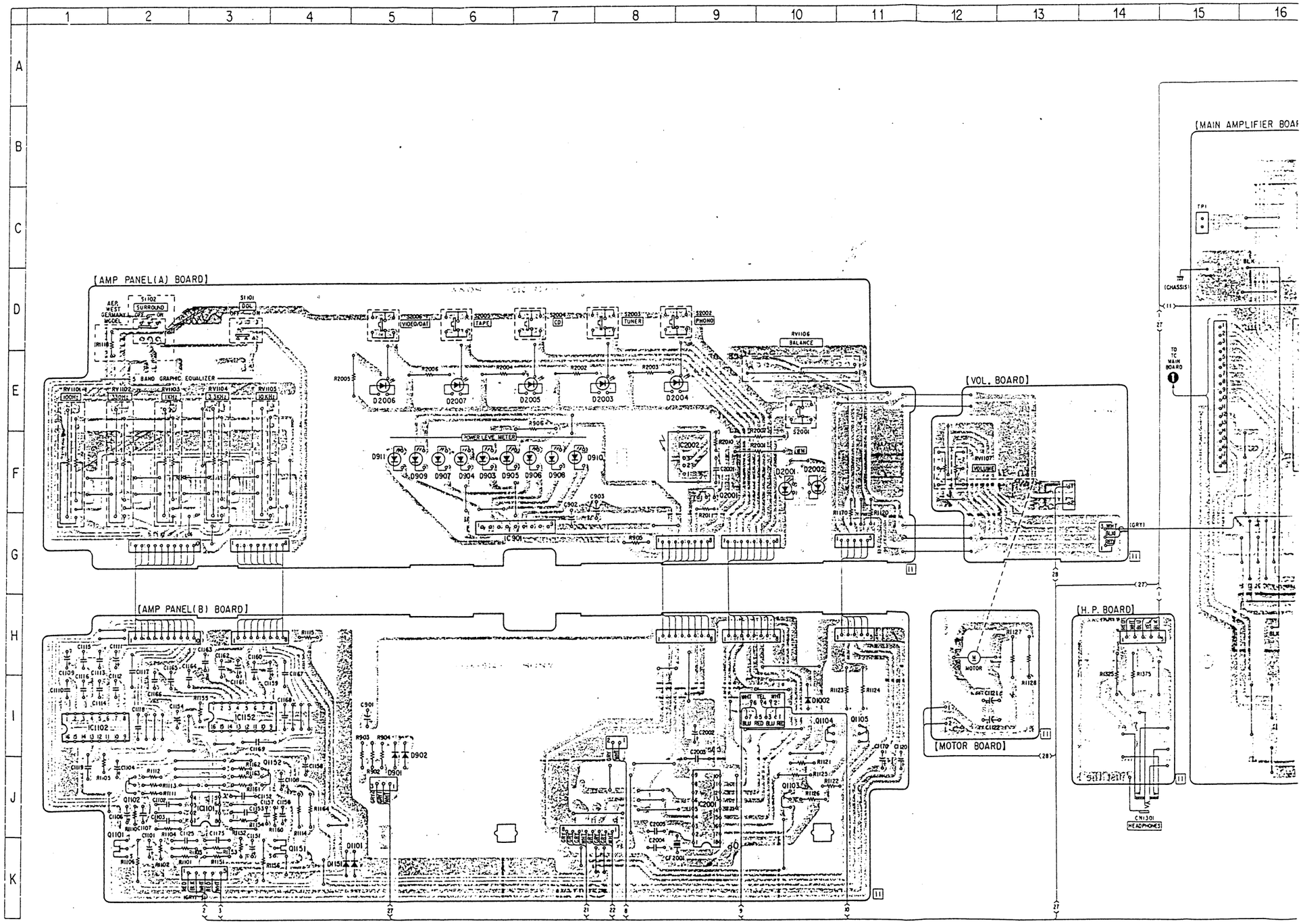
Note:

- Color code or sleeving over the end of the jacket.

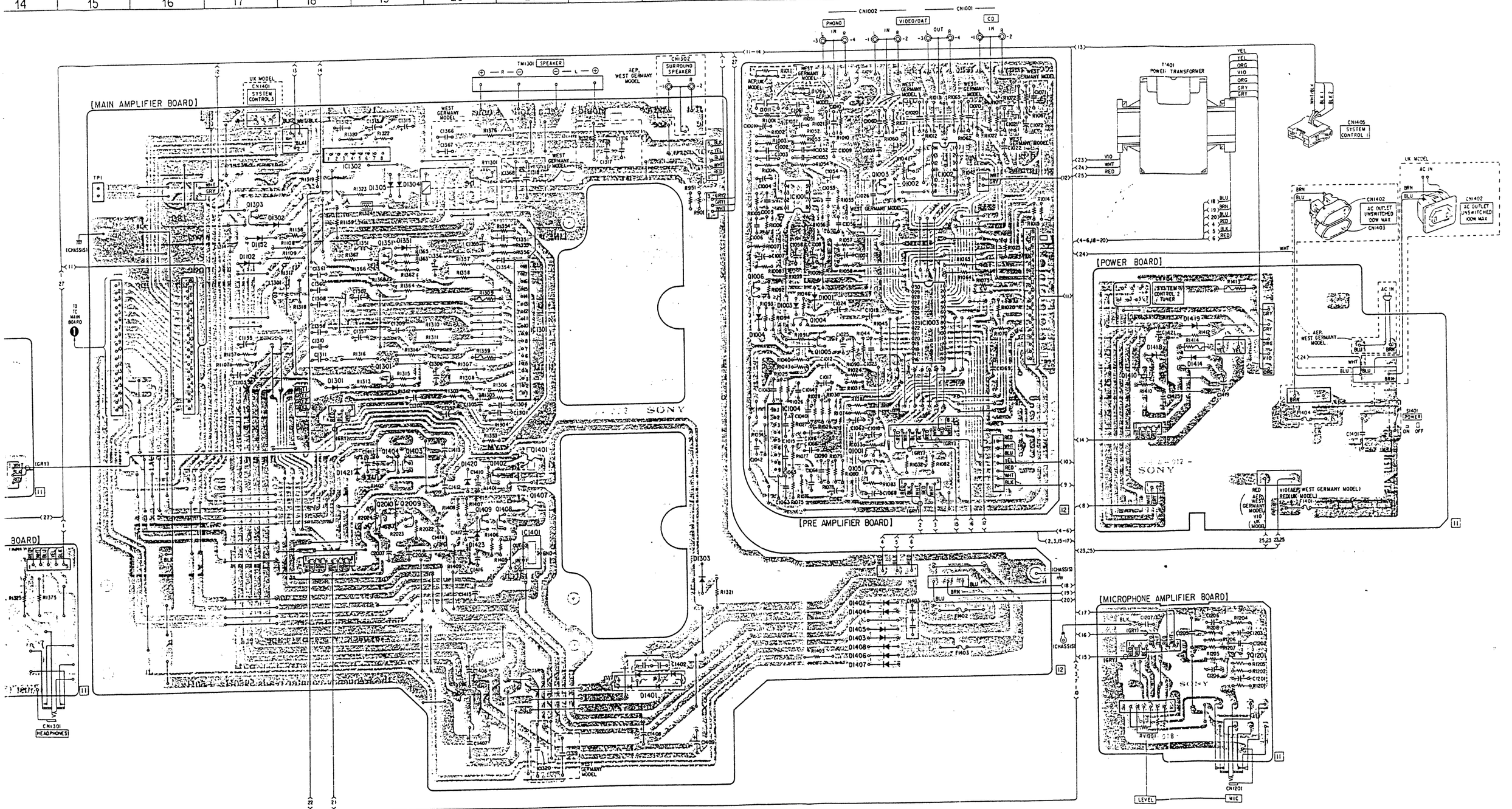


- o—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- [ ]— indicates side identified with part number.

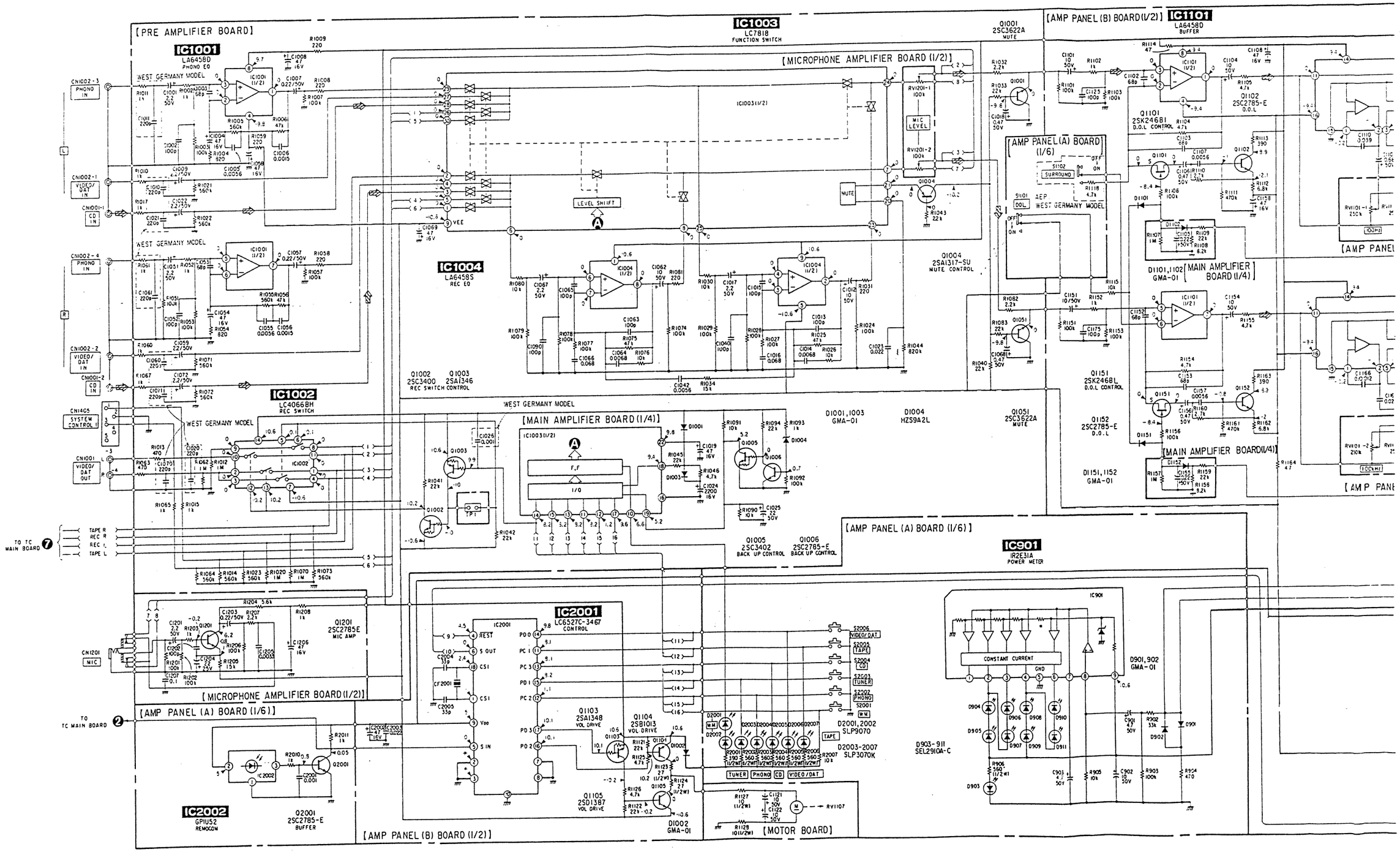
Ref. No.	Location	Re. No.	Location
D901	I-5	IC901	G-7
D902	I-5	IC1001	C-25
D903	F-6	IC1002	I-10
D904	F-6	IC1003	E-26
D905	F-7	IC1004	G-24
D906	F-7	IC1101	J-3
D907	F-6	IC1102	I-1
D908	F-7	IC1152	I-3
D909	F-5	IC301	E-21
D910	F-7	IC1302	C-19
D911	F-5	IC401	H-21
D1001	E-25	IC2001	J-9
D1002	I-10	IC2002	F-9
D1003	E-25		
D1004	E-24	Q1001	G-26
D1101	K-5	Q1002	C-26
D1102	D-17	Q1003	C-26
D1151	K-4	Q1004	E-25
D1152	D-17	Q1005	E-25
D1301	F-18	Q1006	D-24
D1302	C-17	Q1051	G-26
D1303	H-23	Q1101	K-2
D1304	C-19	Q1102	J-2
D1305	C-19	Q1103	J-10
D1351	D-19	Q1104	I-10
D1401	J-22	Q1105	I-11
D1402	I-26	Q1151	K-4
D1403	I-26	Q1152	J-3
D1404	I-26	Q1201	J-31
D1405	I-26	Q1301	F-19
D1406	I-26	Q1303	C-17
D1407	I-26	Q1351	D-19
D1408	I-26	Q1401	G-21
D1414	F-30	Q1402	G-20
D1418	E-29	Q1403	G-19
D1419	E-30	Q1404	G-19
D1420	G-20	Q1407	G-21
D1421	G-18	QQ1408	H-21
D1423	H-20	Q1409	H-20
D2001	F-10	Q1410	F-29
D2002	F-10	Q2001	F-9
D2003	E-8	Q2009	H-19
D2004	E-8	Q2010	H-19
D2005	E-7		
D2006	E-5		
D2007	E-6		



14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34



4-3. SCHEMATIC DIAGRAM —AUDIO SECTION—



9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25

IC1003 LC7818 FUNCTION SWITCH

[MICROPHONE AMPLIFIER BOARD (I/2)]

Q1001 2SC3622A MUTE

[AMP PANEL (B) BOARD(I/2)]

IC1101 LA6458D BUFFER

Q1101 2SK2468L D.D.L CONTROL

Q1102 2SC2785-E D.D.L

[AMP PANEL(A) BOARD(I/6)]

SW101 AEP. WEST GERMANY MODEL

SW102 SURROUND

SW103 DOL

D1101,1102 GMA-01

[MAIN AMPLIFIER BOARD(I/4)]

IC1102 M5226P G.E.Q

[VOL BOARD]

RV1106 BALANCE

RV1107 VOLUME

[AMP PANEL(A) BOARD(I/6)]

IC1152 M5226P G.E.Q

Q1151 2SK2468L D.D.L CONTROL

Q1152 2SC2785-E D.D.L

D1151,1152 GMA-01

[MAIN AMPLIFIER BOARD(I/4)]

[AMP PANEL (A) BOARD (I/6)]

Q1004 2SA1317-SU MUTE CONTROL

D1001,1003 GMA-01

D1004 HZ59A2L

Q1051 2SC3622A MUTE

Q1005 2SC3402 BACK UP CONTROL

Q1006 2SC2785-E BACK UP CONTROL

[AMP PANEL (A) BOARD (I/6)]

IC901 IR2E31A POWER METER

D901,902 GMA-01

D903-911 SEL2910A-C

D2001,2002 SLP9070

D2003-2007 SLP3070K

[MOTOR BOARD]

RV1107

[MAIN AMPLIFIER BOARD (I/4)]

IC1301 STK4152II POWER AMP

D1301 GMA-01

Q1301 2SC1841 LOAD PICK UP

D1302 GMA-01

D1351 GMA-01

Q1351 2SC1841 LOAD PICK UP

IC1401 M5F7812 REGULATOR

+12V

+5V

+10V

TO TC MAIN BOARD

CN1401 SYSTEM CONTROL 3

UK MODEL

Q1407 2SD1666-R REGULATOR

Q1408 2SC2785-E REGULATOR

Q1409 2SC2785-E REGULATOR

D1423 HZ3CLL

Q2009,2010 2SC2785-E RESET

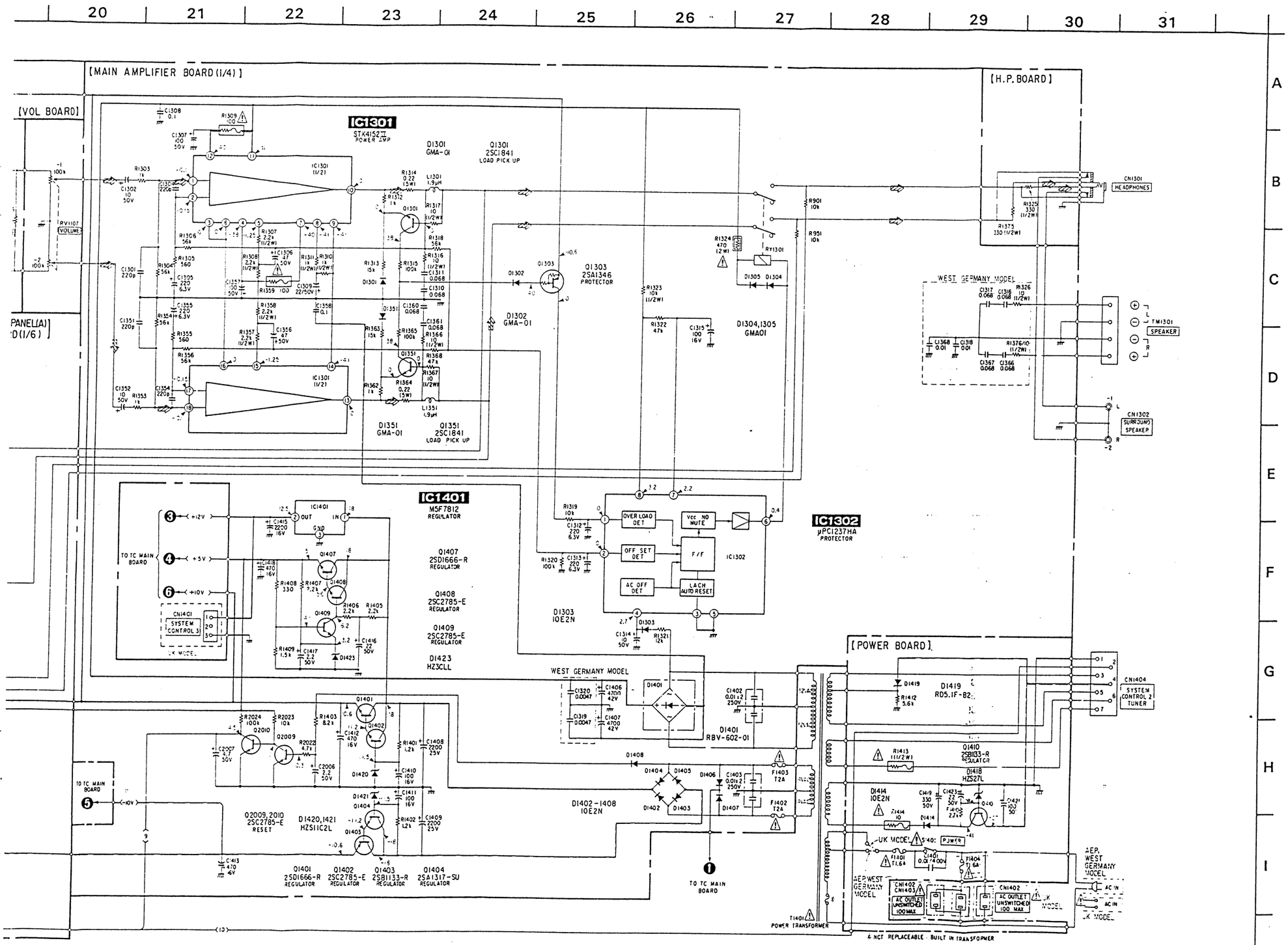
D1420,1421 HZS11C2L

Q1401 2SD1666-R REGULATOR

Q1402 2SC2785-E REGULATOR

Q1403 2SB1133-R REGULATOR

Q1404 2SA1317-SU REGULATOR



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and ¼W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : B+ Line
- : B− Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Switch

Ref. No.	Switch	Position
S1101	DOL	OFF
S1102	ASURROUND	OFF
S1401	POWER	OFF
S2001	WM	OFF
S2002	PHONO	OFF
S2003	TUNER	OFF
S2004	CD	OFF
S2005	TAPE	OFF
S2006	VIDEO/DAT	OFF

Note on Schematic Diagram:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- % : indicates tolerance.
- △ : internal component.
- : nonflammable resistor.
- : fusible resistor.
- : B+ Line
- : B− Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : PLAY
- Voltages are taken with a VOM (50 kΩ/V).
  Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : PB (DECK A)
  : PB (DECK B)
  : REC (DECK B)

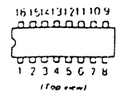
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- Switch

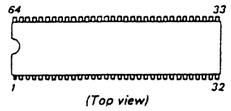
Ref. No.	Switch	Position
S501	▷(DECK A)	OFF
S502	◁(DECK A)	OFF
S503	◀◀(DECK A)	OFF
S504	▶▶(DECK A)	OFF
S505	■(DECK A)	OFF
S506	●REC MUTE	OFF
S507	▷(DECK B)	OFF
S508	◁(DECK B)	OFF
S509	❚❚PAUSE	OFF
S511	REC	OFF
S512	◀◀(DECK B)	OFF
S513	▶▶(DECK B)	OFF
S514	■(DECK B)	OFF
S515	DUBBING HIGH SPEED (DECK B)	OFF
S516	DUBBING NORMAL SPEED (DECK B)	OFF
S517	DIRECTION MODE	⇄
S519	DOLBY NR	OFF

● Semiconductor Lead Layouts

CXA1100P
CXA1198P
M4053BP
M5226P
TC4052BP



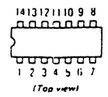
CXP5048H-115S



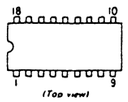
IR2E31A
LA6458S

LA6458D

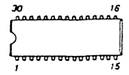
LC4066BH



LC6527C-3438

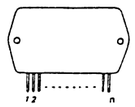


LC7818



M5F7812

STK-4152II

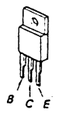


μPC1237HA

2SA1317-SU
2SA1345
2SA1346
2SA1348
2SC3399
2SC3400
2SC3402
2SC3901

2SB1013
2SC1841
2SD1387

2SB1133-R
2SD1666-R

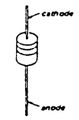


2SC2785-E

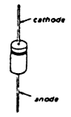
2SC3622A-L

2SK246-BL

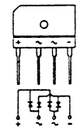
GMA-01
HZS11C2L
HZS27L
HZS6C3L
HZS7C2L
HZS9A2L
HZ9B2L



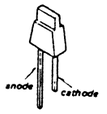
HZ11B2L
HZ3CLL
RD5.1F-B2
10E2N



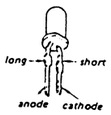
RBV-602-01



HZS27-2L



SEL2910A-C

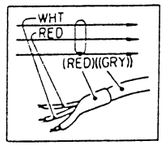


SLP3070K
SLP4070
SLP9070

4-4. PRINTED WIRING BOARDS —TC SECTION—

Note:

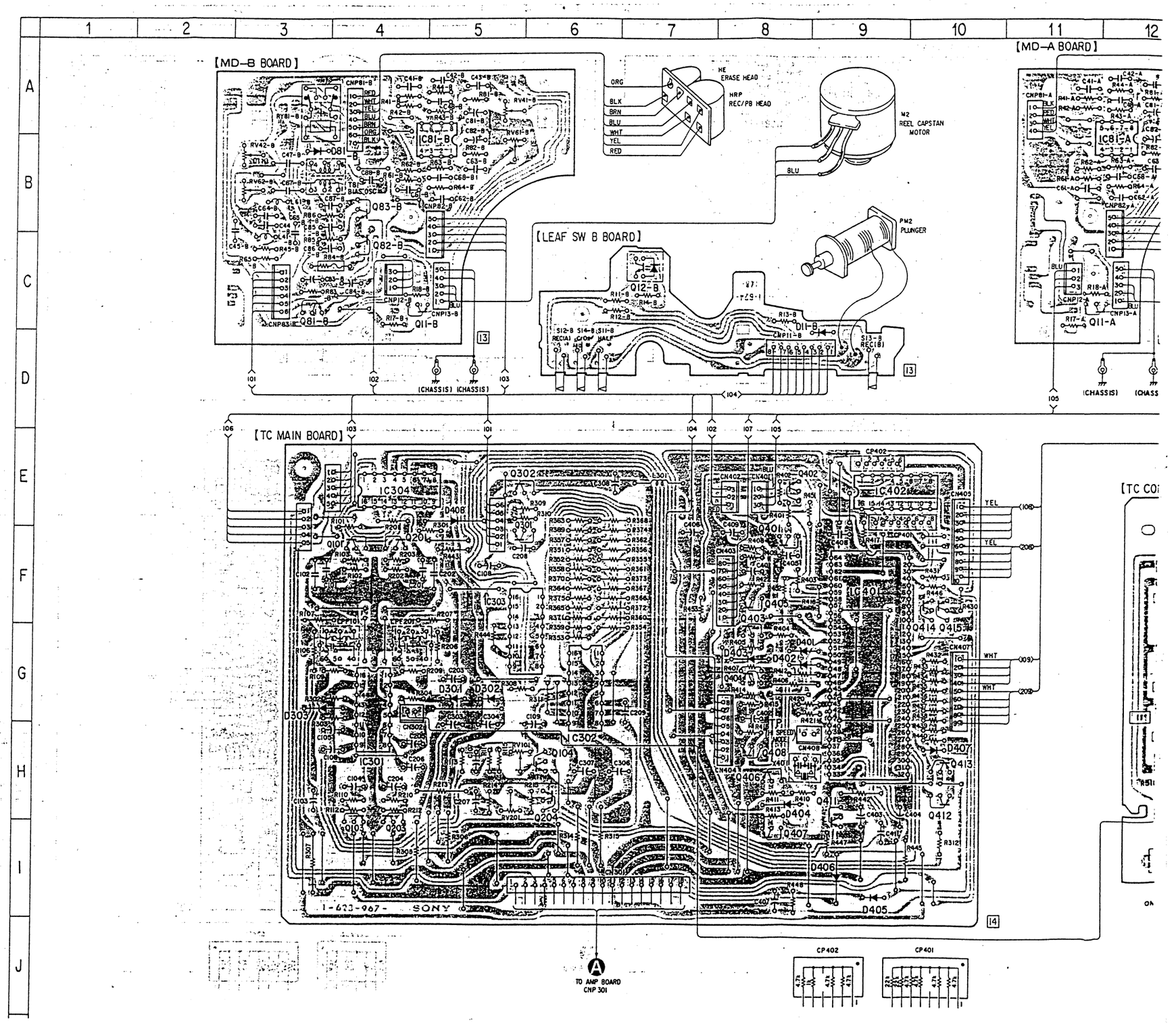
- Color code or sleeving over the end of the jacket.

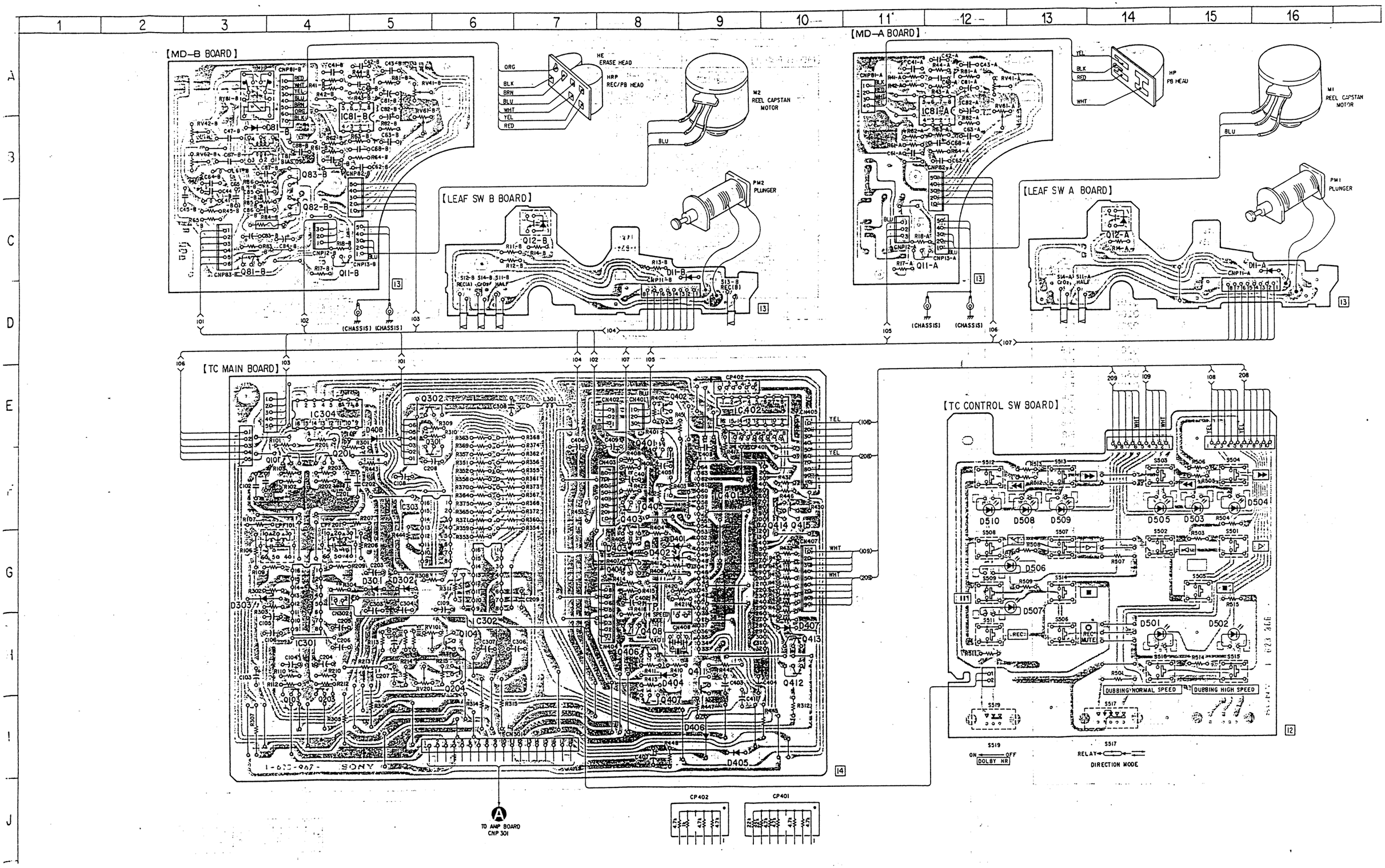


- ○—— : parts extracted from the component side.
- ■ : parts mounted on the conductor side.
- [ ]— indicates side identified with part number.

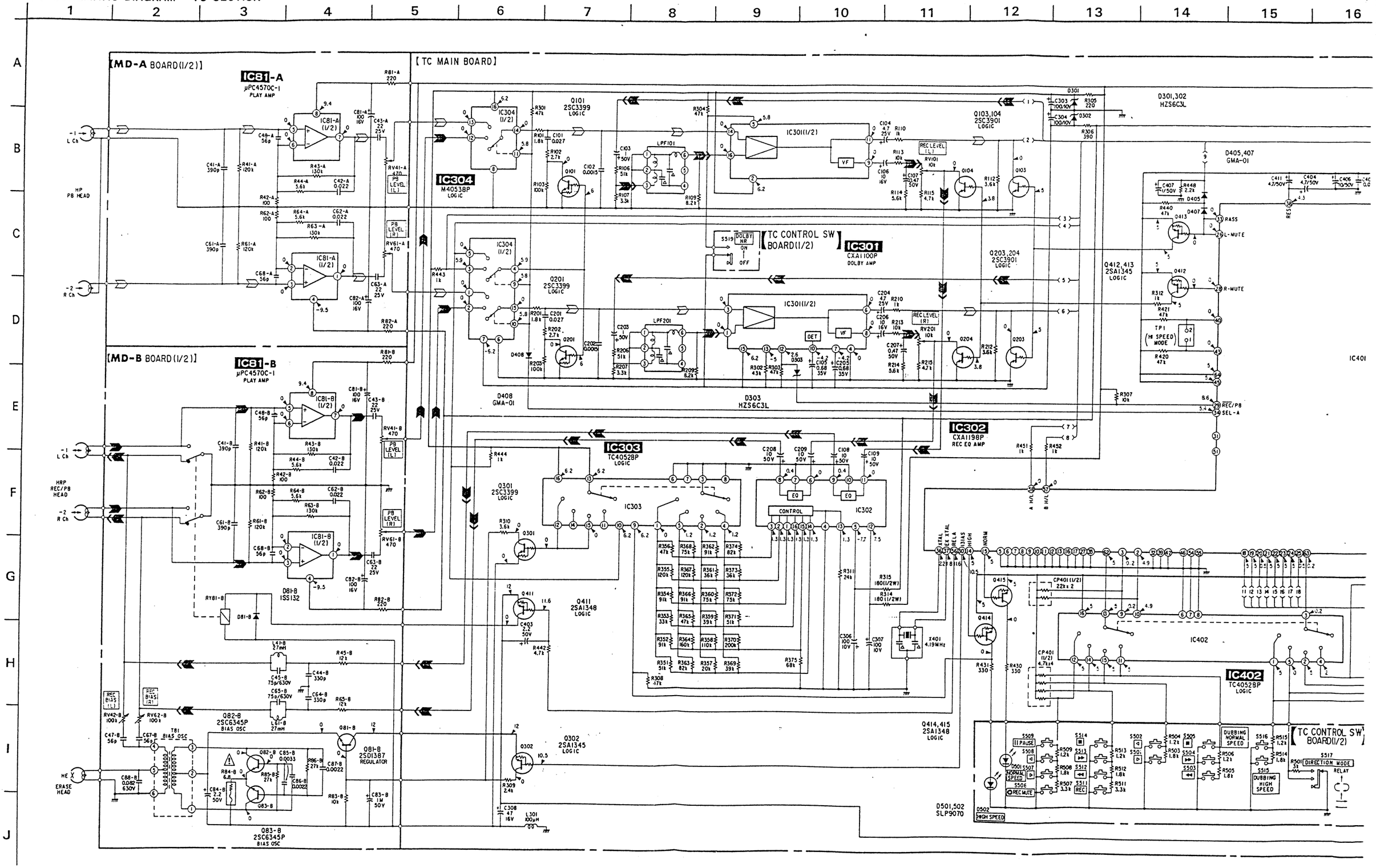
● Semiconductor Location

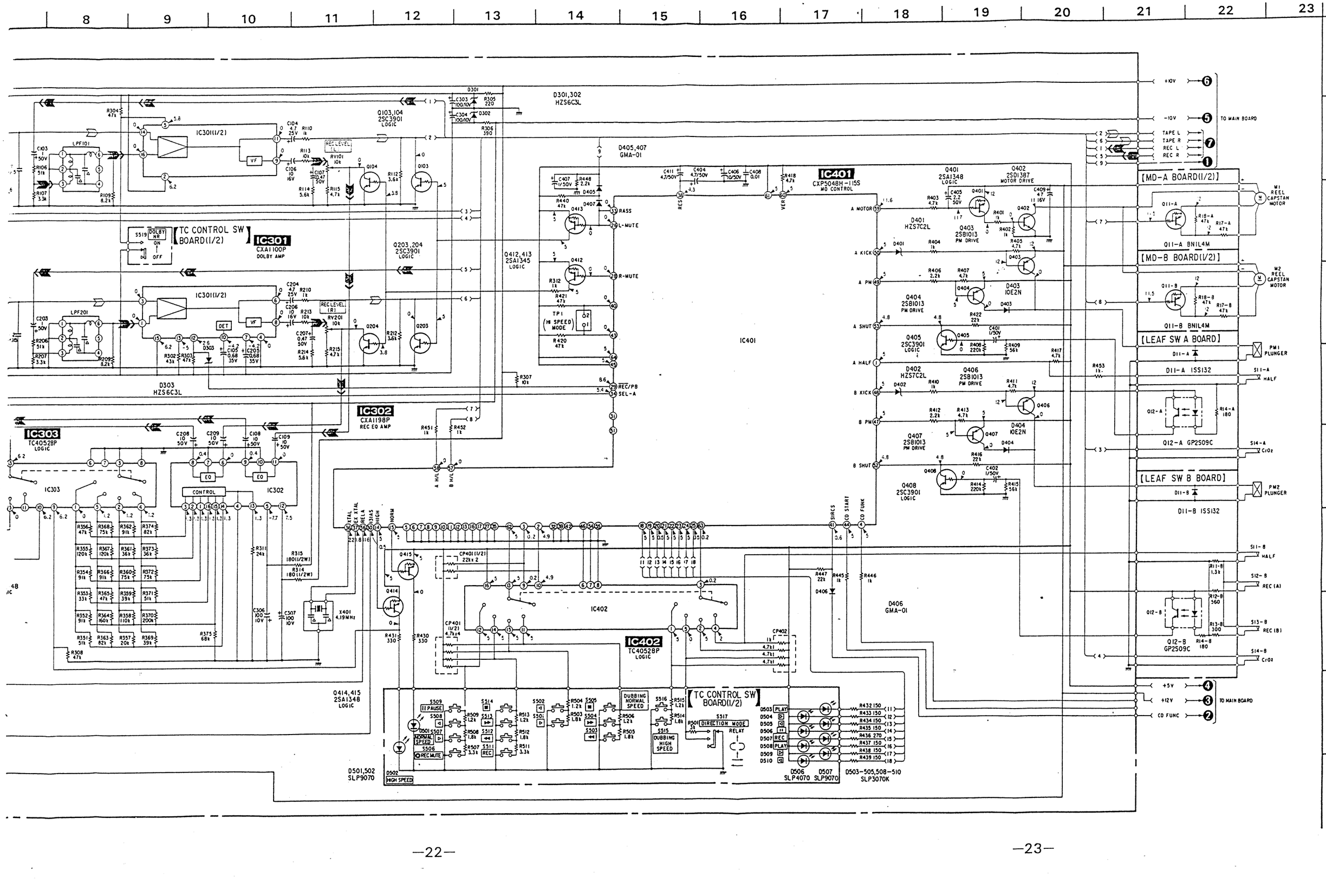
Ref. No.	Location	Ref. No.	Location
D11-A	D-16	Q101	F-4
D11-B	D-9	Q103	I-4
D81-B	B-3	Q104	H-6
D301	G-5	Q201	F-4
D302	G-5	Q203	I-4
D303	G-3	Q204	H-6
D401	G-8	Q301	F-6
D402	G-8	Q302	E-6
D403	G-8	Q401	F-8
D404	H-8	Q402	E-8
D405	I-9	Q403	G-8
D406	I-9	Q404	G-8
D407	H-10	Q405	F-8
D408	E-5	Q406	H-8
D501	H-14	Q407	I-8
D502	H-15	Q408	H-8
D503	F-15	Q411	H-9
D504	F-15	Q412	H-10
D505	F-14	Q413	H-10
D506	G-12	Q414	F-10
D507	H-12	Q415	F-10
D508	F-13		
D509	F-13		
D510	F-12		
IC81-A	B-12		
IC81-B	B-5		
IC301	G-4		
IC302	G-6		
IC303	G-6		
IC304	E-4		
IC401	G-9		
IC402	E-9		
Q11-A	C-11		
Q11-B	C-4		
Q12-A	C-14		
Q12-B	C-7		
Q81-B	C-3		
Q82-B	C-4		
Q83-B	B-4		




【MD-B BOARD】
【MD-A BOARD】
【LEAF SW B BOARD】
【LEAF SW A BOARD】
【TC MAIN BOARD】
【TC CONTROL SW BOARD】
HE ERASE HEAD
HRP REC/PB HEAD
M2 REEL CAPSTAN MOTOR
PM2 PLUNGER
HP PB HEAD
M1 REEL CAPSTAN MOTOR
PM1 PLUNGER
(CHASSIS)
TO AMP BOARD CNP 301
CP402
CP401
DUBBING NORMAL SPEED
DUBBING HIGH SPEED
S519 ON DOLBY NR OFF
S517 RELAY DIRECTION MODE

4-5. SCHEMATIC DIAGRAM —TC SECTION—




8
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17
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19
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21
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23
A
B
C
D
E
F
G
H
I
J
IC301(1/2)
LPF101
LPF201
VF
DET
REC LEVEL (L)
REC LEVEL (R)
Q103,104 2SC3901 LOGIC
Q203,204 2SC3901 LOGIC
D301,302 HZS6C3L
D303 HZS6C3L
S519 DOLBY NR ON OFF
[TC CONTROL SW BOARD(1/2)]
IC301 CXA1100P DOLBY AMP
IC302 CXA1198P REC EQ AMP
IC303 TC4052BP LOGIC
IC401 CXP5048H-115S MD CONTROL
IC402 TC4052BP LOGIC
D405,407 GMA-01
D406 GMA-01
Q412,413 2SA1345 LOGIC
Q414,415 2SA1348 LOGIC
Q401 2SA1348 LOGIC
Q402 2SD1387 MOTOR DRIVE
Q403 2SB1013 PM DRIVE
Q404 2SB1013 PM DRIVE
Q405 2SC3901 LOGIC
Q406 2SB1013 PM DRIVE
Q407 2SB1013 PM DRIVE
Q408 2SC3901 LOGIC
D401 HZS7C2L
D402 HZS7C2L
D403 10E2N
D404 10E2N
TP1 (HI SPEED MODE)
X401 4.19MHz
EQ
CONTROL
RASS
L-MUTE
R-MUTE
REC/PB
SEL-A
A H/L
B H/L
XTAL
EX XTAL
RELA
SIAS
HIGH
NORM
SIRCS
CD START
CD FUNK
A MOTOR
A KICK
A PM
A SHUT
A HALF
B KICK
B PM
B SHUT
RESET
VERT
+10V
-10V
TAPE L
TAPE R
REC L
REC R
TO MAIN BOARD
[MD-A BOARD(1/2)]
[MD-B BOARD(1/2)]
[LEAF SW A BOARD]
[LEAF SW B BOARD]
Q11-A BN1L4M
Q11-B BN1L4M
D11-A ISS132
D11-B ISS132
Q12-A GP2S09C
Q12-B GP2S09C
M1 REEL CAPSTAN MOTOR
M2 REEL CAPSTAN MOTOR
PM1 PLUNGER
PM2 PLUNGER
S11-A HALF
S14-A CrO2
S11-B HALF
S12-B REC (A)
S13-B REC (B)
S14-B CrO2
+5V
+12V
CD FUNC
TO MAIN BOARD
[TC CONTROL SW BOARD(1/2)]
S501 DIRECTION MODE
RELAY
S502 S503 S504 S505 S506 S507 S508 S509 S510 S511 S512 S513 S514 S515 S516 S517
DUBBING NORMAL SPEED
DUBBING HIGH SPEED
NORMAL SPEED
REC MUTE
II PAUSE
D501,502 SLP9070
D502 HIGH SPEED
D503-505,508-510 SLP3070K
D506 D507 SLP4070 SLP9070
0503 PLAY
0504
0505
0506
0507 REC
0508 PLAY
0509
0510

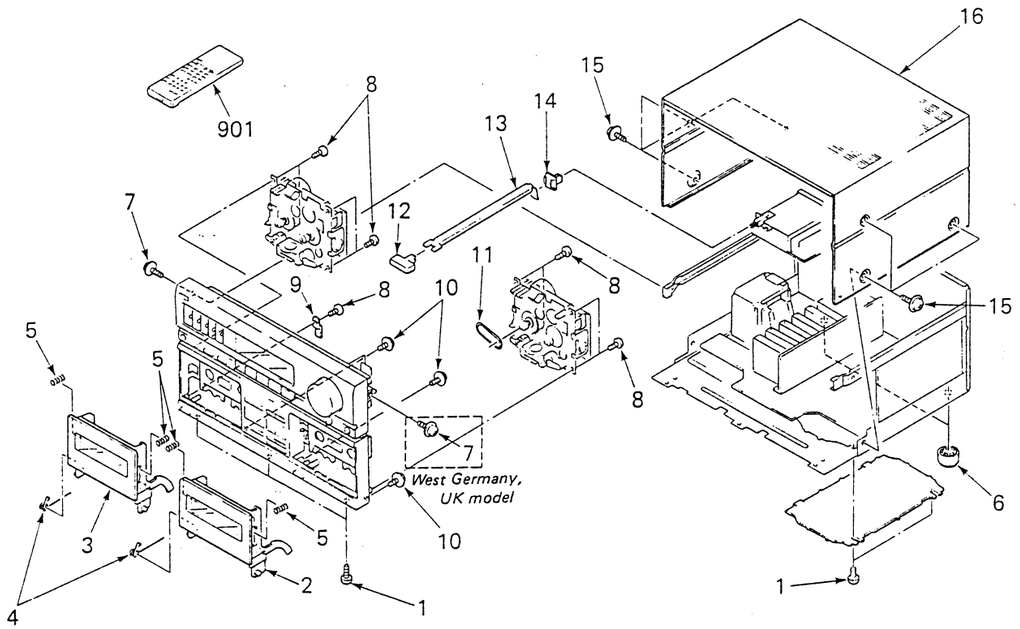
SECTION 5
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

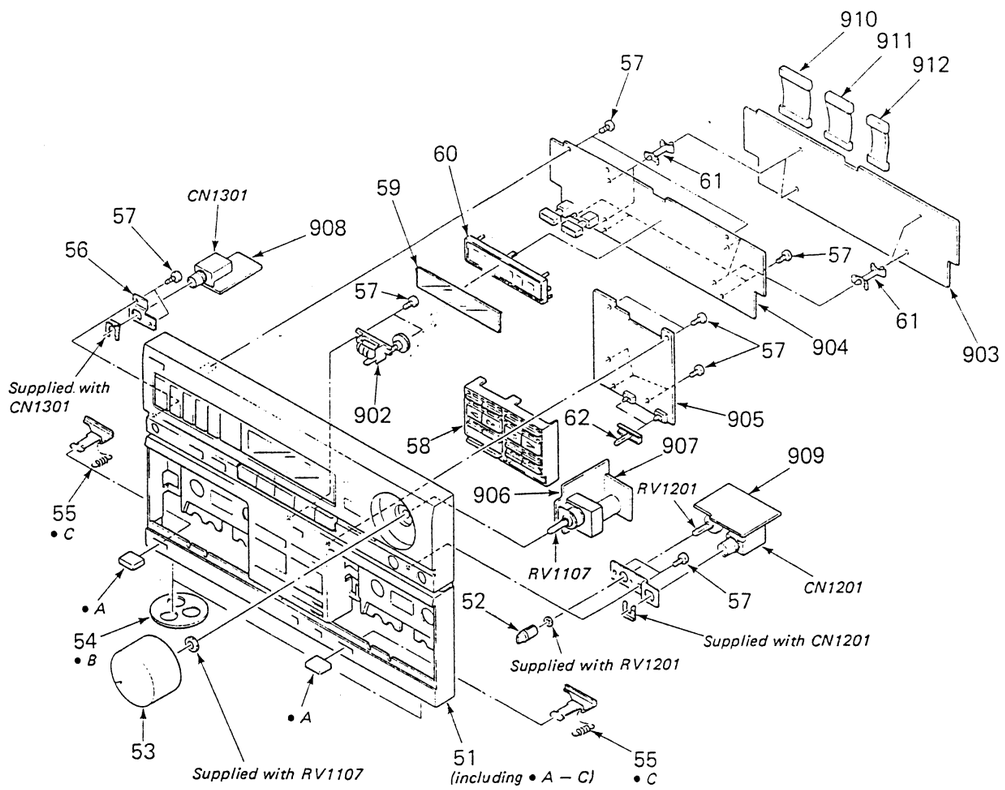
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

5-1. CASE, CASSETTE LID



No.	Part No.	Description	Remarks
1	7-682-147-01	SCREW +BVTT 3X6 (S)	
2	X-4924-503-1	(GRAY)....HOLDER (B) ASSY, CASSETTE	
	X-4924-504-1	(BLACK)...HOLDER (B) ASSY, CASSETTE	
	X-4924-505-1	(WHITE)...HOLDER (B) ASSY, CASSETTE	
3	X-4924-501-1	(GRAY)....HOLDER (A) ASSY, CASSETTE	
	X-4924-502-1	(WHITE)...HOLDER (A) ASSY, CASSETTE	
	X-4924-521-1	(BLACK)...HOLDER (A) ASSY, CASSETTE	
4	4-924-506-01	SPRING (LOADING)	
5	3-610-808-00	SPRING (1)	
6	X-4921-901-1	FOOT ASSY	
7	2-383-566-00	SCREW	
8	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
9	*4-923-141-01	BRACKET (I)	
10	7-685-648-79	SCREW, TAPPING	
11	3-308-460-00	BELT, CAPSTAN	
12	4-923-162-11	(BLACK)...BUTTON (P)	
	4-923-162-01	(GRAY)....BUTTON (P)	
	4-923-162-21	(WHITE)...BUTTON (P)	
13	*4-924-510-01	JOINT (P)	
14	4-875-466-00	JOINT (F2), KNOB	
15	3-704-366-01	(BLACK,GRAY)...SCREW (CASE) (M3X8)	
	3-704-366-11	(WHITE).....SCREW (CASE) (M3X8)	
16	4-924-512-01	(GRAY)....CASE	
	4-924-512-11	(BLACK)...CASE	
	4-924-512-21	(WHITE)...CASE	
901	1-463-988-11	(BLACK,GRAY)...REMOTE COMMANDER(RM-L510)	
	1-463-995-11	(WHITE).....REMOTE COMMANDER(RM-L510)	

5-2. FRONT PANEL

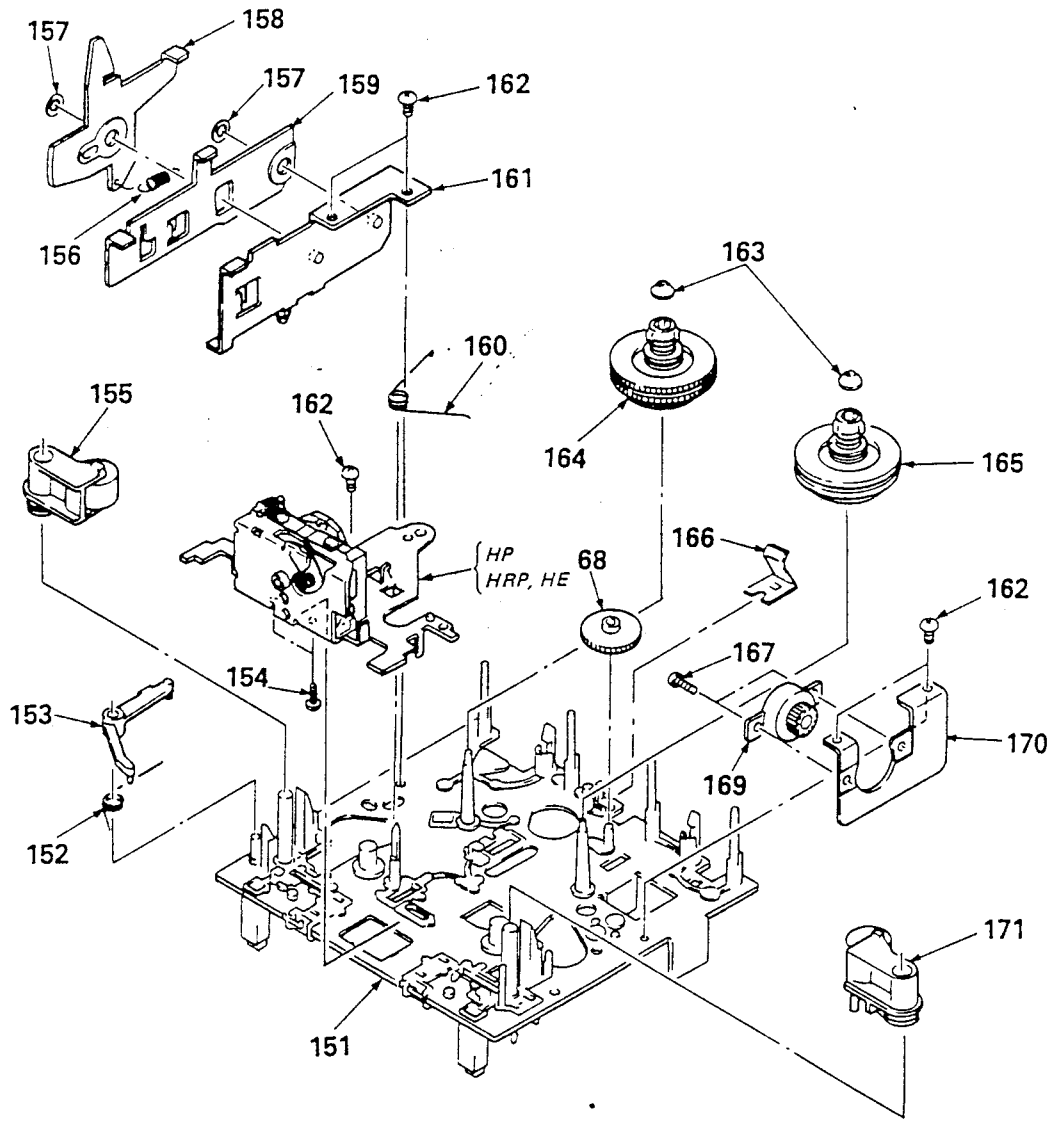


No.	Part No.	Description	Remarks
51	X-4924-511-1	(WHITE).....PANEL ASSY, FRONT	
	X-4924-512-1	(UK:GRAY)....PANEL ASSY, FRONT	
	X-4924-513-1	(AEP:GRAY)...PANEL ASSY, FRONT	
	X-4924-514-1	(BLACK).....PANEL ASSY, FRONT	
52	4-921-921-01	(BLACK)...KNOB (M)	
	4-921-921-21	(GRAY)....KNOB (M)	
	4-921-921-31	(WHITE)...KNOB (M)	
53	4-921-926-11	(BLACK)...KNOB (V)	
	4-921-926-21	(GRAY)....KNOB (V)	
	4-921-926-31	(WHITE)...KNOB (V)	
54	4-921-906-01	FELT	
55	4-885-182-11	SPRING, TENSION	
56	*4-918-073-01	BRACKET (E)	
57	7-685-534-19	SCREW +BTP 2.6X8 TYPE2 N-S	
58	X-4924-506-1	(WHITE)...BUTTON (K) ASSY	
	X-4924-507-1	(GRAY)....BUTTON (K) ASSY	
	X-4924-508-1	(BLACK)...BUTTON (K) ASSY	
59	*4-924-507-01	PLATE (P), INDICATION	
60	*4-924-509-01	HOLDER, LED	
61	*3-661-764-00	HOLDER, PCB	
62	4-918-065-41	(BLACK)...KNOB (A)	
	4-918-065-21	(GRAY)....KNOB (A)	
	4-918-065-31	(WHITE)...KNOB (A)	
902	1-548-596-31	COUNTER, TAPE (MIDDLE TYPE)	
903	*1-626-014-11	PC BOARD, AMP PANEL (B)	
904	*1-626-013-11	PC BOARD, AMP PANEL (A)	
905	*1-623-966-11	PC BOARD, TC CONTROL SW	
906	*1-626-016-11	PC BOARD, VOL.	
907	*1-626-017-11	PC BOARD, MOTOR	
908	*1-626-015-11	PC BOARD, H.P.	
909	*1-626-018-11	PC BOARD, MICROPHONE AMPLIFIER	
910	*1-559-537-11	CORD (WITH CONNECTOR) 10P	
911	*1-559-536-11	CORD (WITH CONNECTOR) 8P	
912	*1-559-535-11	CORD (WITH CONNECTOR) 5P	

5-4. MECHANISM DECK (1)

DECK A : TCM-170RA1

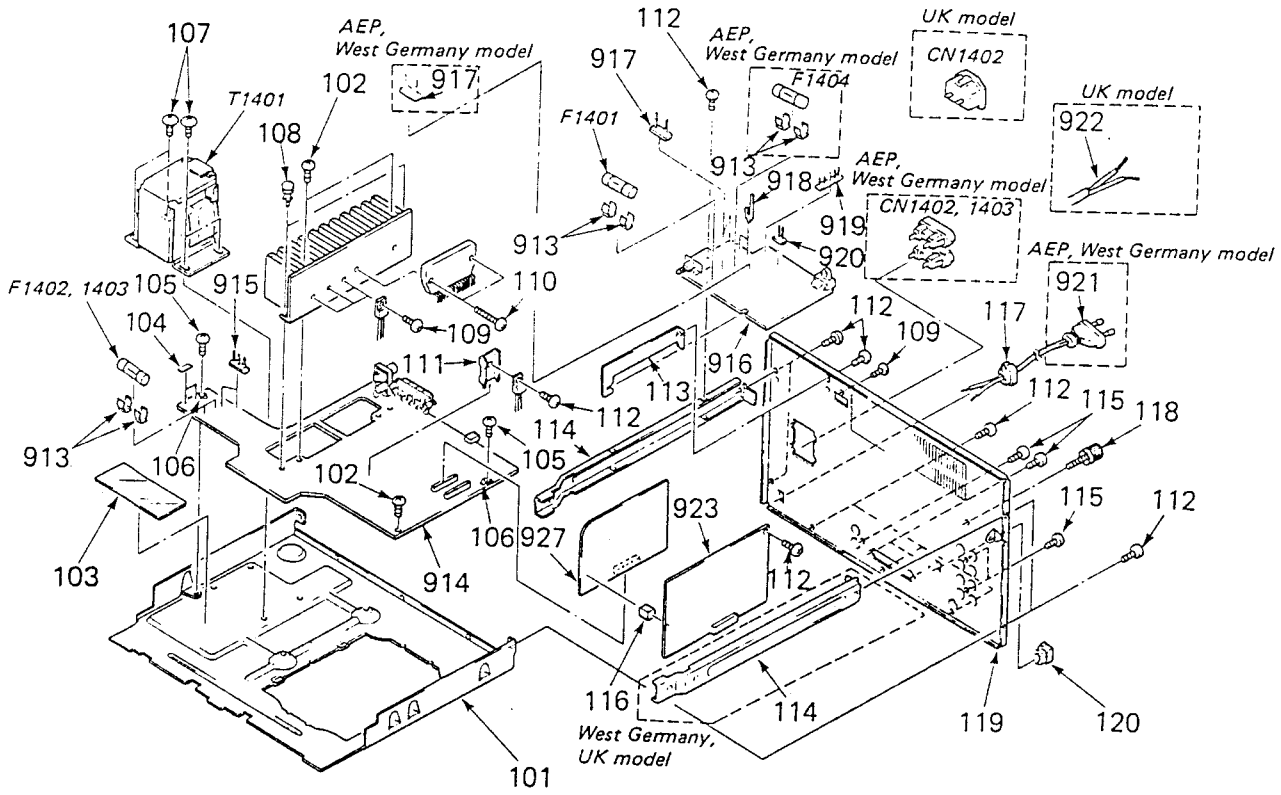
DECK S : TCM-170RB1



No.	Part No.	Description	Remarks
151	X-3343-413-1	CHASSIS ASSY, MECHANICAL	
152	3-343-448-01	SPRING, TORSION	
153	3-343-416-01	LEVER (EJECT SAFETY LEVER)	
154	7-685-102-19	SCREW +P 2X4 NON-SLIT TYPE 2	
155	X-3343-403-1	LEVER (PINCH LEVER REV) ASSY	
156	3-343-474-01	SPRING, TENSION	
157	3-558-708-21	WASHER, STOPPER	
158	*3-343-449-01	LEVER (LOCK LEVER)	
159	*3-343-450-01	LEVER (EJECT LEVER)	
160	3-343-401-01	SPRING, TORSION	
161	*X-3343-410-1	BRACKET (EJECT) ASSY	
162	7-621-773-86	SCREW +BVTT 2.6X4 (S)	

No.	Part No.	Description	Remarks
163	3-343-439-01	CAP (REEL TABLE)	
164	X-3343-415-1	TABEL (REV) ASSY, REEL	
165	X-3343-401-1	TABEL ASSY, REEL	
166	3-343-420-01	SPRING, LEAF	
167	7-621-255-15	SCREW +PTT 2X3 (S)	
168	3-343-411-01	GEAR (FF GEAR)	
169	3-319-224-31	DAMPER, SMALL	
170	*3-343-438-01	BRACKET (DAMPER BRACKET)	
171	X-3343-402-1	LEVER (PINCH LEVER FWD) ASSY	
HE	A-2108-123-A	(DECK B)...PC BOARD ASSY, HEAD (HRP/HE)	
HP	A-2108-122-A	(DECK A)...PC BOARD ASSY, HEAD (HP)	
HRP	A-2108-123-A	(DECK B)...PC BOARD ASSY, HEAD (HRP/HE)	

5-3. CHASSIS



No.	Part No.	Description	Remarks
101	*4-921-903-23	CHASSIS	
102	7-682-548-04	SCREW +BVTT 3X8 (S)	
103	*4-924-505-01	SHEET, INSULATING	
104	*3-701-948-17	LABEL, FUSE	
105	3-703-685-21	SCREW (+BV 3X8)	
106	4-870-539-00	PLATE, GROUND	
107	7-682-560-04	SCREW +BVTT 4X6 (S)	
108	4-917-239-01	RIVET, NYLON	
109	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
110	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
111	*3-309-144-21	HEAT SINK	
112	7-682-147-01	SCREW +BVTT 3X6 (S)	
114	*4-918-090-01	JOINT (C)	
115	7-685-646-79	SCREW +BVTP 3X8 TYPE2 IT-3	
116	9-911-843-XX	CUSHION, CRT	
117	3-703-571-00	BUSHING (S) (4516), CORD	
118	*3-706-165-00	SCREW	
119	*4-924-501-01	(AEP).....PANEL, BACK	
	*4-924-501-21	(UK).....PANEL, BACK	
	*4-924-501-31	(WEST GERMANY)...PANEL, BACK	
120	*3-703-244-00	BUSHING (2104), CORD	
913	1-533-183-11	HOLDER, FUSE	

No.	Part No.	Description	Remarks
914	*A-4388-718-A	(AEP)....MOUNTED PCB, MAIN AMPLIFIER	
	*A-4388-719-A	(WEST GERMANY) ....MOUNTED PCB, MAIN AMPLIFIER	
	*A-4388-720-A	(UK).....MOUNTED PCB, MAIN AMPLIFIER	
915	*1-535-116-00	TERMINAL	
916	*1-626-012-11	PC BOARD, POWER	
917	*1-535-139-00	BASE POST 22MM (10MM PITCH) 2P	
918	*1-535-476-11	(AEP,WEST GERMANY)...TERMINAL	
919	*1-535-118-00	TERMINAL	
920	*1-535-115-00	TERMINAL	
921	⚠1-555-750-00	(AEP,WEST GERMANY)...CORD, POWER	
922	⚠1-556-035-00	(UK).....CORD, POWER	
923	*A-4410-602-A	MOUNTED PCB, MAIN, TC	
927	*A-4382-334-A	(AEP,UK).....MOUNTED PCB, PRE AMPLIFIER	
	*A-4382-335-A	(WEST GERMANY)..MOUNTED PCB, PRE AMPLIFIER	
CN1401	1-559-831-11	CORD (WITH CONNECTOR) 5P(SYSTEM CONTROL 1)	
⚠CN1402	1-526-751-00	(UK).....OUTLET, AC	
⚠CN1402	1-526-794-11	(AEP,WEST GERMANY)...OUTLET, AC	
⚠CN1403	1-526-794-11	(AEP,WEST GERMANY)...OUTLET, AC	
F1401⚠	1-532-259-00	FUSE, TIME-LAG (T1.6A)	
F1402⚠	1-532-203-00	FUSE, TIME-LAG (T2A)	
F1403⚠	1-532-203-00	FUSE, TIME-LAG (T2A)	
F1404⚠	1-532-259-00	FUSE, TIME-LAG (T1.6A)	
T1401⚠	1-449-219-11	TRANSFORMER, POWER	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

SECTION 6
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA...,
UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description
901	1-463-988-11	(BLACK,GRAY) ...REMOTE COMMANDER (RM-L510)
	1-463-995-11	(WHITE)....REMOTE COMMANDER (RM-L510)
902	1-548-596-31	COUNTER, TAPE (MIDDLE TYPE)
903	*1-626-014-11	PC BOARD, AMP PANEL (B)
904	*1-626-013-11	PC BOARD, AMP PANEL (A)
905	*1-623-966-11	PC BOARD, TC CONTROL SW
906	*1-626-016-11	PC BOARD, VOL.
907	*1-626-017-11	PC BOARD, MOTOR
908	*1-626-015-11	PC BOARD, H.P.
909	*1-626-018-11	PC BOARD, MICROPHONE AMPLIFIER
910	*1-559-537-11	CORD (WITH CONNECTOR) 10P
911	*1-559-536-11	CORD (WITH CONNECTOR) 8P
912	*1-559-535-11	CORD (WITH CONNECTOR) 5P
913	1-533-183-11	HOLDER, FUSE
914	*A-4388-718-A	(AEP)....MOUNTED PCB, MAIN AMPLIFIER
	*A-4388-719-A	(WEST GERMANY) ....MOUNTED PCB, MAIN AMPLIFIER
	*A-4388-720-A	(UK).....MOUNTED PCB, MAIN AMPLIFIER
915	*1-535-116-00	TERMINAL
916	*1-626-012-11	PC BOARD, POWER
917	*1-535-139-00	BASE POST 22MM (10MM PITCH) 2P
918	*1-535-476-11	(AEP,WEST GERMANY)...TERMINAL
919	*1-535-118-00	TERMINAL
920	*1-535-115-00	TERMINAL
921	⚠1-555-750-00	(AEP,WEST GERMANY)...CORD, POWER
922	⚠1-556-035-00	(UK).....CORD, POWER
923	*A-4410-602-A	MOUNTED PCB, MAIN, TC
927	*A-4382-334-A	(AEP,UK)...MOUNTED PCB, PRE AMPLIFIER
	*A-4382-335-A	(WEST GERMANY) ....MOUNTED PCB, PRE AMPLIFIER

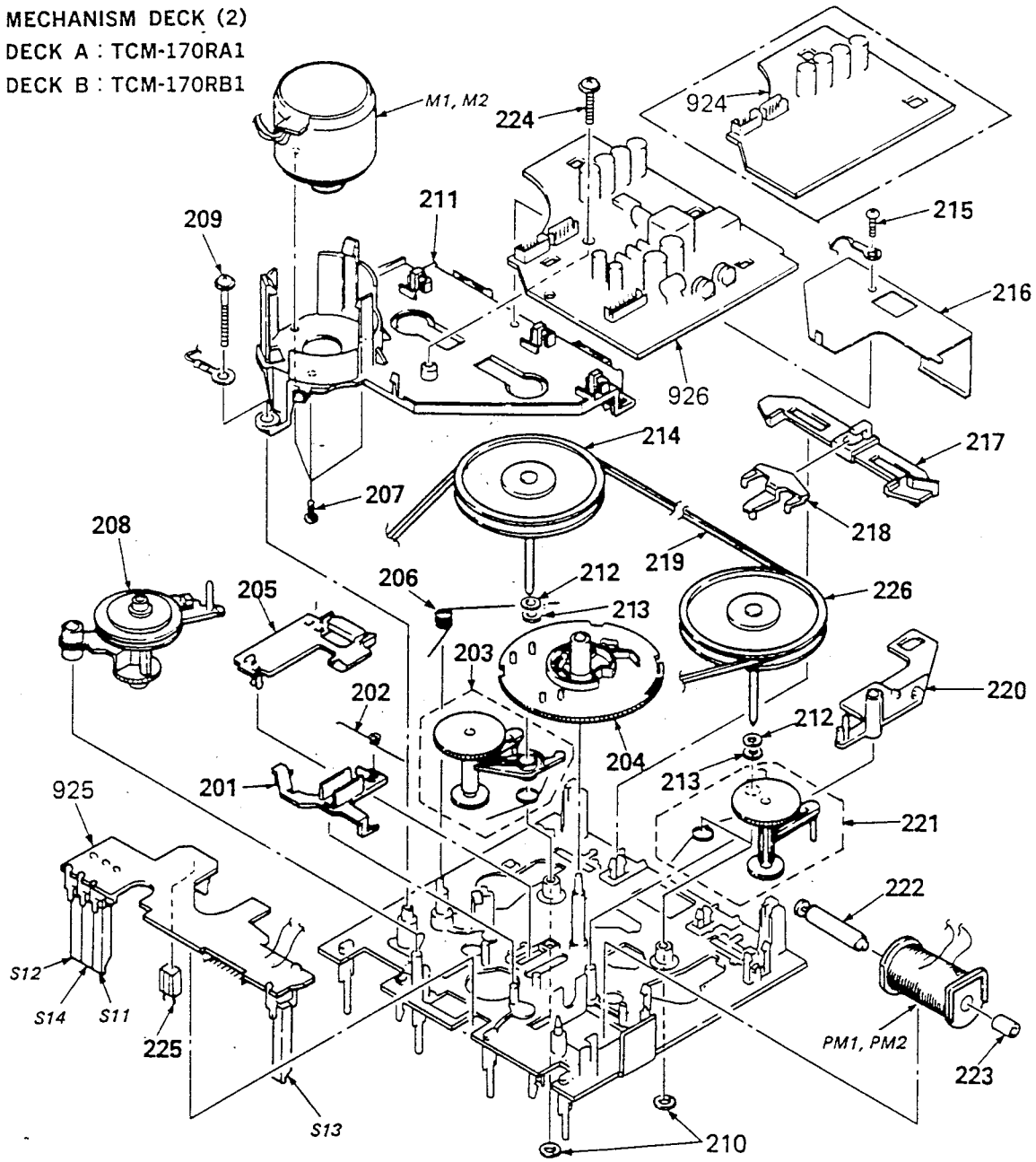
C41-A	1-162-289-31	CERAMIC	390PF	10%	50V
C41-B	1-162-289-31	CERAMIC	390PF	10%	50V
C42-A	1-136-157-00	FILM	0.022MF	5%	50V
C42-B	1-136-157-00	FILM	0.022MF	5%	50V
C43-A	1-124-282-00	ELECT	22MF	20%	25V
C43-B	1-124-282-00	ELECT	22MF	20%	25V
C44-B	1-162-288-31	CERAMIC	330PF	10%	50V
C45-B	1-136-273-91	FILM	75PF	5%	630V
C47-B	1-162-217-31	CERAMIC	56PF	5%	50V
C48-A	1-162-217-31	CERAMIC	56PF	5%	50V
C48-B	1-162-217-31	CERAMIC	56PF	5%	50V
C61-A	1-162-289-31	CERAMIC	390PF	10%	50V
C61-B	1-162-289-31	CERAMIC	390PF	10%	50V

Ref.No.	Part No.	Description			
C62-A	1-136-157-00	FILM	0.022MF	5%	50V
C62-B	1-136-157-00	FILM	0.022MF	5%	50V
C63-A	1-124-282-00	ELECT	22MF	20%	25V
C63-B	1-124-282-00	ELECT	22MF	20%	25V
C64-B	1-162-288-31	CERAMIC	330PF	10%	50V
C65-B	1-136-273-91	FILM	75PF	5%	630V
C67-B	1-162-217-31	CERAMIC	56PF	5%	50V
C68-A	1-162-217-31	CERAMIC	56PF	5%	50V
C68-B	1-162-217-31	CERAMIC	56PF	5%	50V
C81-A	1-126-101-11	ELECT	100MF	20%	16V
C81-B	1-126-101-11	ELECT	100MF	20%	16V
C82-A	1-126-101-11	ELECT	100MF	20%	16V
C82-B	1-126-101-11	ELECT	100MF	20%	16V
C83-B	1-124-499-11	ELECT	1MF	20%	50V
C84-B	1-124-925-11	ELECT	2.2MF	20%	50V
C85-B	1-130-477-00	MYLAR	0.0033MF	5%	50V
C86-B	1-110-199-00	MYLAR	0.0022MF	5%	50V
C87-B	1-110-199-00	MYLAR	0.0022MF	5%	50V
C88-B	1-136-562-11	FILM	0.0082MF	5%	630V
C101	1-136-158-00	FILM	0.027MF	5%	50V
C102	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C103	1-124-499-11	ELECT	1MF	20%	50V
C104	1-124-245-00	ELECT	4.7MF	20%	25V
C105	1-131-346-00	TANTALUM	0.68MF	10%	35V
C106	1-124-462-00	ELECT	10MF	20%	16V
C107	1-124-902-00	ELECT	0.47MF	20%	50V
C108	1-123-875-11	ELECT	10MF	20%	50V
C109	1-123-875-11	ELECT	10MF	20%	50V
C201	1-136-158-00	FILM	0.027MF	5%	50V
C202	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C203	1-124-499-11	ELECT	1MF	20%	50V
C204	1-124-245-00	ELECT	4.7MF	20%	25V
C205	1-131-346-00	TANTALUM	0.68MF	10%	35V
C206	1-124-462-00	ELECT	10MF	20%	16V
C207	1-124-902-00	ELECT	0.47MF	20%	50V
C208	1-123-875-11	ELECT	10MF	20%	50V
C209	1-123-875-11	ELECT	10MF	20%	50V
C303	1-124-443-00	ELECT	100MF	20%	10V
C304	1-124-443-00	ELECT	100MF	20%	10V
C306	1-124-443-00	ELECT	100MF	20%	10V
C307	1-124-443-00	ELECT	100MF	20%	10V
C308	1-124-477-11	ELECT	47MF	20%	16V
C401	1-124-499-11	ELECT	1MF	20%	50V
C402	1-124-499-11	ELECT	1MF	20%	50V
C403	1-124-925-11	ELECT	2.2MF	20%	50V
C404	1-124-927-11	ELECT	4.7MF	20%	50V

5-5. MECHANISM DECK (2)

DECK A : TCM-170RA1

DECK B : TCM-170RB1



No.	Part No.	Description	Remarks
201	3-343-453-01	SLIDER (BRAKE PLATE)	
202	3-343-429-01	SPRING, TORSION	
203	X-3343-406-1	LEVER (TU ARM REV) ASSY	
204	3-343-470-01	GEAR (CAM GEAR)	
205	*3-343-461-01	SLIDER	
206	3-343-430-01	SPRING, TORSION	
207	7-627-556-28	SCREW +P 2.6X3.5	
208	X-3343-414-1	LAVER (FR ARM) ASSY	
209	3-343-403-01	SCREW (PTTWH 2X18)	
210	3-343-473-01	WASHER, NYLON	
211	*X-3343-407-1	BASE (THRUST RETAINER) ASSY	
212	4-605-835-11	WASHER (2.6), POLYSLIDER	
213	3-307-482-00	WASHER, LUMILER	
214	X-3343-411-1	FLYWHEEL COMPLETE ASSY	
215	7-685-102-19	SCREW +P 2X4 NON-SLIT TYPE 2	
216	*3-343-480-01	PLATE, SHIELD	
217	*3-343-457-01	SLIDER (REVERSE SLIDER)	

No.	Part No.	Description	Remarks
218	3-343-462-01	LEVER	
219	3-343-426-01	BELT (CAPSTAN BELT SQUARE)	
220	*3-343-456-01	LEVER (PM LEVER)	
221	X-3343-405-1	LEVER (TU ARM FWD) ASSY	
222	*3-343-425-01	ARBOR(MOVABLE IRON ARBOR),IRON	
223	*3-343-424-01	ARBOR (FIXED IRON ARBOR), IRON	
224	3-343-404-01	SCREW (PTPWH 2X10)	
225	*3-343-419-01	HOLDER (S SENSER A)	
226	X-3343-416-1	FLYWHEEL (REV) COMPLETE ASSY	
924	*1-624-147-13	(DECK A)...PC BOARD, MD-A	
925	*1-624-148-11	PC BOARD, LEAF SW (A)/(B)	
926	*1-624-146-11	(DECK B)...PC BOARD, MD-B	
M1	X-3343-408-1	MOTOR ASSY	
M2	X-3343-408-1	MOTOR ASSY	
PM1	1-454-456-11	PLUNGER	
PM2	1-454-456-11	PLUNGER	

Ref.No.	Part No.	Description			
C1305	1-124-444-00	ELECT	220MF	20%	6.3V
C1306	1-124-910-11	ELECT	47MF	20%	50V
C1307	1-124-122-11	ELECT	100MF	20%	50V
C1308	1-136-165-00	FILM	0.1MF	5%	50V
C1309	1-124-908-11	ELECT	22MF	20%	50V
C1310	1-136-163-00	FILM	0.068MF	5%	50V
C1311	1-136-163-00	FILM	0.068MF	5%	50V
C1312	1-124-444-00	ELECT	220MF	20%	6.3V
C1313	1-124-444-00	ELECT	220MF	20%	6.3V
C1314	1-123-875-11	ELECT	1MF	20%	50V
C1315	1-126-101-11	ELECT	100MF	20%	16V
C1316	1-136-163-00	(WEST GERMANY)...FILM	0.068MF	5%	50V
C1317	1-136-163-00	(WEST GERMANY)...FILM	0.068MF	5%	50V
C1318	1-161-379-00	(WEST GERMANY)..CERAMIC	0.01MF	20%	25V
C1319	1-161-377-00	(WEST GERMANY)..CERAMIC	0.0047MF	20%	50V
C1320	1-161-377-00	(WEST GERMANY)..CERAMIC	0.0047MF	20%	50V
C1351	1-162-286-31	CERAMIC	220PF	10%	50V
C1352	1-123-875-11	ELECT	1MF	20%	50V
C1354	1-162-286-31	CERAMIC	220PF	10%	50V
C1355	1-124-444-00	ELECT	220MF	20%	6.3V
C1356	1-124-910-11	ELECT	47MF	20%	50V
C1357	1-124-122-11	ELECT	100MF	20%	50V
C1358	1-136-165-00	FILM	0.1MF	5%	50V
C1360	1-136-163-00	FILM	0.068MF	5%	50V
C1361	1-136-163-00	FILM	0.068MF	5%	50V
C1366	1-136-163-00	(WEST GERMANY)..FILM	0.068MF	5%	50V
C1367	1-136-163-00	(WEST GERMANY)..FILM	0.068MF	5%	50V
C1368	1-161-379-00	(WEST GERMANY)..CERAMIC	0.01MF	20%	25V
C1401	1-161-744-00	CERAMIC	0.01MF		400V
C1402	1-102-355-00	CERAMIC	0.01MF		250V
C1403	1-102-355-00	CERAMIC	0.01MF		250V
C1406	1-126-224-11	ELECT	4700MF	20%	42V
C1407	1-126-224-11	ELECT	4700MF	20%	42V
C1408	1-124-563-11	ELECT	2200MF	20%	25V
C1409	1-124-563-11	ELECT	2200MF	20%	25V
C1410	1-126-101-11	ELECT	100MF	20%	16V
C1411	1-126-101-11	ELECT	100MF	20%	16V
C1412	1-126-103-11	ELECT	470MF	20%	16V
C1413	1-126-103-11	ELECT	470MF	20%	16V
C1415	1-124-556-11	ELECT	2200MF	20%	16V
C1416	1-124-908-11	ELECT	22MF	20%	50V
C1417	1-124-925-11	ELECT	2.2MF	20%	50V
C1418	1-126-103-11	ELECT	470MF	20%	16V
C1419	1-124-912-11	ELECT	330MF	20%	50V
C1421	1-124-122-11	ELECT	100MF	20%	50V
C1423	1-124-908-11	ELECT	22MF	20%	50V
C2001	1-162-294-31	CERAMIC	0.001MF	10%	50V
C2002	1-124-477-11	ELECT	47MF	20%	16V
C2003	1-161-494-00	CERAMIC	0.022MF		25V
C2004	1-102-963-00	CERAMIC	33PF	5%	50V
C2005	1-102-963-00	CERAMIC	33PF	5%	50V
C2006	1-124-925-11	ELECT	2.2MF	20%	50V
C2007	1-124-927-11	ELECT	4.7MF	20%	50V
CF2001	1-567-738-11	VIBRATOR, CERAMIC			
CN301	*1-562-370-00	CONNECTOR, BOARD TO BOARD 18P			
CN302	*1-564-336-51	PIN, CONNECTOR 2P			
CN401	*1-564-337-51	PIN, CONNECTOR 3P			

Ref.No.	Part No.	Description
CN402	*1-564-337-61	PIN, CONNECTOR 3P
CN403	*1-564-342-51	PIN, CONNECTOR 8P
CN404	*1-564-342-61	PIN, CONNECTOR 8P
CN405	*1-564-666-11	PIN, CONNECTOR 10P
CN407	*1-506-503-11	PIN, CONNECTOR 9P
CN408	*1-564-505-11	PLUG, CONNECTOR 2P
CN1001	1-507-788-00	JACK, PIN 4P
CN1002	1-507-788-00	JACK, PIN 4P
CN1201	1-565-117-11	JACK, LARGE TYPE (MIC)
CN1301	1-566-836-11	JACK, LARGE TYPE 1P (HEADPHONES)
CN1302	1-507-807-00	(AEP,WEST GERMANY)...JACK, PIN 2P (SURROUND SPEAKER)
CN1401	*1-566-210-11	(UK)..PIN, CONNECTOR 3P (SYSTEM CONTROL 3)
⚠CN1402	1-526-751-00	(UK).....OUTLET, AC
⚠CN1402	1-526-794-11	(AEP,WEST GERMANY)...OUTLET, AC
⚠CN1403	1-526-794-11	(AEP,WEST GERMANY)...OUTLET, AC
CN1404	1-566-857-11	SOCKET, CONNECTOR 7P (SYSTEM CONTROL 2 TUNER)
CN1405	1-559-831-11	CORD (WITH CONNECTOR) 5P (SYSTEM CONTROL 1)
CNP12-A	*1-564-337-51	PIN, CONNECTOR 3P
CNP12-B	*1-564-337-61	PIN, CONNECTOR 3P
CNP13-A	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP13-B	*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P
CNP81-A	*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P
CNP81-B	*1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P
CNP82-A	*1-564-339-51	PIN, CONNECTOR 5P
CNP82-B	*1-564-339-61	PIN, CONNECTOR 5P
CNP83-B	*1-564-340-61	PIN, CONNECTOR 6P
CP401	1-233-120-11	COMPOSITION CIRCUIT BLOCK
CP402	1-233-119-11	COMPOSITION CIRCUIT BLOCK
D11-A	8-719-940-76	DIODE 1SS132
D11-B	8-719-940-76	DIODE 1SS132
D81-B	8-719-940-76	DIODE 1SS132
D301	8-719-933-41	DIODE HZS6C3L
D302	8-719-933-41	DIODE HZS6C3L
D303	8-719-933-41	DIODE HZS6C3L
D401	8-719-933-50	DIODE HZS7C2L
D402	8-719-933-50	DIODE HZS7C2L
D403	8-719-200-77	DIODE 10E2N
D404	8-719-200-77	DIODE 10E2N
D405	1-806-937-11	DIODE GMA-01
D406	1-806-937-11	DIODE GMA-01
D407	1-806-937-11	DIODE GMA-01
D408	1-806-937-11	DIODE GMA-01
D501	1-807-689-11	DIODE SLP9070
D502	1-807-689-11	DIODE SLP9070
D503	8-719-969-90	DIODE SLP3070K
D504	8-719-969-90	DIODE SLP3070K
D505	8-719-969-90	DIODE SLP3070K
D506	1-807-689-31	DIODE SLP4070
D507	1-807-689-11	DIODE SLP9070

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
C405	1-124-925-11	ELECT	2.2MF	20%	50V
C406	1-123-875-11	ELECT	10MF	20%	50V
C407	1-124-499-11	ELECT	1MF	20%	50V
C408	1-136-153-00	FILM	0.01MF	5%	50V
C409	1-124-477-11	ELECT	47MF	20%	16V
C411	1-124-927-11	ELECT	4.7MF	20%	50V
C901	1-124-927-11	ELECT	4.7MF	20%	50V
C902	1-123-875-11	ELECT	10MF	20%	50V
C903	1-124-927-11	ELECT	4.7MF	20%	50V
C1001	1-124-925-11	ELECT	2.2MF	20%	50V
C1002	1-162-282-31	CERAMIC	100PF	10%	50V
C1003	1-162-219-31	CERAMIC	68PF	5%	50V
C1004	1-124-477-11	ELECT	47MF	20%	16V
C1005	1-130-480-00	MYLAR	0.0056MF	5%	50V
C1006	1-130-473-00	MYLAR	0.0015MF	5%	50V
C1007	1-124-464-11	ELECT	0.22MF	20%	50V
C1008	1-124-477-11	ELECT	47MF	20%	16V
C1009	1-124-925-11	ELECT	2.2MF	20%	50V
C1010	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1011	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1012	1-123-875-11	ELECT	10MF	20%	50V
C1013	1-162-282-31	CERAMIC	100PF	10%	50V
C1014	1-130-481-00	MYLAR	0.0068MF	5%	50V
C1015	1-162-282-31	CERAMIC	100PF	10%	50V
C1016	1-136-163-00	FILM	0.068MF	5%	50V
C1017	1-124-925-11	ELECT	2.2MF	20%	50V
C1018	1-124-902-00	ELECT	0.47MF	20%	50V
C1019	1-124-477-11	ELECT	47MF	20%	16V
C1020	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1021	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1022	1-124-925-11	ELECT	2.2MF	20%	50V
C1023	1-161-494-00	CERAMIC	0.022MF		25V
C1024	1-124-556-11	ELECT	2200MF	20%	16V
C1025	1-124-908-11	ELECT	22MF	20%	50V
C1026	1-162-294-31	(WEST GERMANY)..CERAMIC	0.001MF	10%	50V
C1040	1-162-282-31	CERAMIC	100PF	10%	50V
C1042	1-130-480-00	MYLAR	0.0056MF	5%	50V
C1051	1-124-925-11	ELECT	2.2MF	20%	50V
C1052	1-162-282-31	CERAMIC	100PF	10%	50V
C1053	1-162-219-31	CERAMIC	68PF	5%	50V
C1054	1-124-477-11	ELECT	47MF	20%	16V
C1055	1-130-480-00	MYLAR	0.0056MF	5%	50V
C1056	1-130-473-00	MYLAR	0.0015MF	5%	50V
C1057	1-124-464-11	ELECT	0.22MF	20%	50V
C1058	1-124-477-11	ELECT	47MF	20%	16V
C1059	1-124-925-11	ELECT	2.2MF	20%	50V
C1060	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1061	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1062	1-123-875-11	ELECT	10MF	20%	50V
C1063	1-162-282-31	CERAMIC	100PF	10%	50V
C1064	1-130-481-00	MYLAR	0.0068MF	5%	50V
C1065	1-162-282-31	CERAMIC	100PF	10%	50V
C1066	1-136-163-00	FILM	0.068MF	5%	50V
C1067	1-124-925-11	ELECT	2.2MF	20%	50V
C1068	1-124-902-00	ELECT	0.47MF	20%	50V
C1069	1-124-477-11	ELECT	47MF	20%	16V
C1070	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V

Ref.No.	Part No.	Description			
C1071	1-162-286-31	(WEST GERMANY)...CERAMIC	220PF	10%	50V
C1072	1-124-925-11	ELECT	2.2MF	20%	50V
C1090	1-162-282-31	CERAMIC	100PF	10%	50V
C1101	1-123-875-11	ELECT	10MF	20%	50V
C1102	1-162-219-31	CERAMIC	68PF	5%	50V
C1103	1-162-219-31	CERAMIC	68PF	5%	50V
C1104	1-123-875-11	ELECT	10MF	20%	50V
C1105	1-124-464-11	ELECT	0.22MF	20%	50V
C1106	1-124-902-00	ELECT	0.47MF	20%	50V
C1107	1-130-480-00	MYLAR	0.0056MF	5%	50V
C1108	1-124-477-11	ELECT	47MF	20%	16V
C1109	1-124-254-00	ELECT	0.68MF	20%	50V
C1110	1-136-160-00	FILM	0.039MF	5%	50V
C1111	1-124-464-11	ELECT	0.22MF	20%	50V
C1112	1-136-154-00	FILM	0.012MF	5%	50V
C1113	1-136-163-00	FILM	0.068MF	5%	50V
C1114	1-130-478-00	MYLAR	0.0039MF	5%	50V
C1115	1-136-157-00	FILM	0.022MF	5%	50V
C1116	1-130-472-00	MYLAR	0.0012MF	5%	50V
C1117	1-161-329-00	CERAMIC	0.0068MF	30%	16V
C1118	1-162-289-31	CERAMIC	390PF	10%	50V
C1119	1-162-282-31	CERAMIC	100PF	10%	50V
C1120	1-123-875-11	ELECT	10MF	20%	50V
C1121	1-123-875-11	ELECT	10MF	20%	50V
C1122	1-123-875-11	ELECT	10MF	20%	50V
C1125	1-162-282-31	CERAMIC	100PF	10%	50V
C1151	1-123-875-11	ELECT	10MF	20%	50V
C1152	1-162-219-31	CERAMIC	68PF	5%	50V
C1153	1-162-219-31	CERAMIC	68PF	5%	50V
C1154	1-123-875-11	ELECT	10MF	20%	50V
C1155	1-124-464-11	ELECT	0.22MF	20%	50V
C1156	1-124-902-00	ELECT	0.47MF	20%	50V
C1157	1-130-480-00	MYLAR	0.0056MF	5%	50V
C1158	1-124-477-11	ELECT	47MF	20%	16V
C1159	1-124-254-00	ELECT	0.68MF	20%	50V
C1160	1-136-160-00	FILM	0.039MF	5%	50V
C1161	1-124-464-11	ELECT	0.22MF	20%	50V
C1162	1-136-154-00	FILM	0.012MF	5%	50V
C1163	1-136-163-00	FILM	0.068MF	5%	50V
C1164	1-130-478-00	MYLAR	0.0039MF	5%	50V
C1165	1-136-157-00	FILM	0.022MF	5%	50V
C1166	1-130-472-00	MYLAR	0.0012MF	5%	50V
C1167	1-161-329-00	CERAMIC	0.0068MF	30%	16V
C1168	1-162-289-31	CERAMIC	390PF	10%	50V
C1169	1-162-282-31	CERAMIC	100PF	10%	50V
C1170	1-123-875-11	ELECT	10MF	20%	50V
C1175	1-162-282-31	CERAMIC	100PF	10%	50V
C1201	1-124-925-11	ELECT	2.2MF	20%	50V
C1202	1-162-282-31	CERAMIC	100PF	10%	50V
C1203	1-124-464-11	ELECT	0.22MF	20%	50V
C1204	1-124-908-11	ELECT	22MF	20%	25V
C1205	1-161-327-00	CERAMIC	0.0033MF	30%	16V
C1206	1-124-477-11	ELECT	47MF	20%	16V
C1207	1-136-165-00	FILM	0.1MF	5%	50V
C1301	1-162-286-31	CERAMIC	220PF	10%	50V
C1302	1-123-875-11	ELECT	10MF	20%	50V
C1304	1-162-286-31	CERAMIC	220PF	10%	50V

Ref.No.	Part No.	Description
Q413	8-729-806-20	TRANSISTOR 2SA1345
Q414	9-986-159-01	TRANSISTOR 2SA1348
Q415	9-986-159-01	TRANSISTOR 2SA1348
Q1001	8-729-107-98	TRANSISTOR 2SC3622A-L
Q1002	8-729-806-34	TRANSISTOR 2SC3400
Q1003	8-729-806-16	TRANSISTOR 2SA1346
Q1004	8-729-820-10	TRANSISTOR 2SA1317-SU
Q1005	8-729-806-28	TRANSISTOR 2SC3402
Q1006	8-729-178-55	TRANSISTOR 2SC2785-E
Q1051	8-729-107-98	TRANSISTOR 2SC3622A-L
Q1101	8-729-224-63	TRANSISTOR 2SK246-BL
Q1102	8-729-178-55	TRANSISTOR 2SC2785-E
Q1103	9-986-159-01	TRANSISTOR 2SA1348
Q1104	8-729-801-83	TRANSISTOR 2SB1013
Q1105	8-729-801-93	TRANSISTOR 2SD1387
Q1151	8-729-224-63	TRANSISTOR 2SK246-BL
Q1152	8-729-178-55	TRANSISTOR 2SC2785-E
Q1201	8-729-178-55	TRANSISTOR 2SC2785-E
Q1301	8-729-108-06	TRANSISTOR 2SC1841
Q1303	8-729-806-16	TRANSISTOR 2SA1346
Q1351	8-729-108-06	TRANSISTOR 2SC1841
Q1401	8-729-804-17	TRANSISTOR 2SD1666
Q1402	8-729-178-55	TRANSISTOR 2SC2785-E
Q1403	8-729-804-67	TRANSISTOR 2SB1133-R
Q1404	8-729-820-10	TRANSISTOR 2SA1317-SU
Q1407	8-729-804-17	TRANSISTOR 2SD1666-R
Q1408	8-729-178-55	TRANSISTOR 2SC2785-E
Q1409	8-729-178-55	TRANSISTOR 2SC2785-E
Q1410	8-729-804-67	TRANSISTOR 2SB1133-R
Q2001	8-729-178-55	TRANSISTOR 2SC2785-E
Q2009	8-729-178-55	TRANSISTOR 2SC2785-E
Q2010	8-729-178-55	TRANSISTOR 2SC2785-E
R11-B	1-215-424-00	CARBON 1.3K 5% 1/4W
R12-B	1-249-414-11	CARBON 560 5% 1/4W
R13-B	1-215-408-00	CARBON 300 5% 1/4W
R14-A	1-249-408-11	CARBON 180 5% 1/4W
R14-B	1-249-408-11	CARBON 180 5% 1/4W
R17-A	1-249-437-11	CARBON 47K 5% 1/4W
R17-B	1-249-437-11	CARBON 47K 5% 1/4W
R18-A	1-249-437-11	CARBON 47K 5% 1/4W
R18-B	1-249-437-11	CARBON 47K 5% 1/4W
R41-A	1-247-881-00	CARBON 120K 5% 1/4W
R41-B	1-247-881-00	CARBON 120K 5% 1/4W
R42-A	1-249-405-11	CARBON 100 5% 1/4W
R42-B	1-249-405-11	CARBON 100 5% 1/4W
R43-A	1-215-472-00	CARBON 130K 5% 1/4W
R43-B	1-215-472-00	CARBON 130K 5% 1/4W
R44-A	1-249-426-11	CARBON 5.6K 5% 1/4W
R44-B	1-249-426-11	CARBON 5.6K 5% 1/4W
R45-B	1-249-430-11	CARBON 12K 5% 1/4W

Ref.No.	Part No.	Description
R61-A	1-247-881-00	CARBON 120K 5% 1/4W
R61-B	1-247-881-00	CARBON 120K 5% 1/4W
R62-A	1-249-405-11	CARBON 100 5% 1/4W
R62-B	1-249-405-11	CARBON 100 5% 1/4W
R63-A	1-215-472-00	CARBON 130K 5% 1/4W
R63-B	1-215-472-00	CARBON 130K 5% 1/4W
R64-A	1-249-426-11	CARBON 5.6K 5% 1/4W
R64-B	1-249-426-11	CARBON 5.6K 5% 1/4W
R65-B	1-249-430-11	CARBON 12K 5% 1/4W
R81-A	1-249-409-11	CARBON 220 5% 1/4W
R81-B	1-249-409-11	CARBON 220 5% 1/4W
R82-A	1-249-409-11	CARBON 220 5% 1/4W
R82-B	1-249-409-11	CARBON 220 5% 1/4W
R83-B	1-249-429-11	CARBON 10K 5% 1/4W
R84-B⚠	1-212-853-00	FUSIBLE 6.8 5% 1/4W F
R85-B	1-249-434-11	CARBON 27K 5% 1/4W
R86-B	1-249-434-11	CARBON 27K 5% 1/4W
R101	1-249-420-11	CARBON 1.8K 5% 1/4W
R102	1-249-422-11	CARBON 2.7K 5% 1/4W
R103	1-249-441-11	CARBON 100K 5% 1/4W
R106	1-215-462-00	CARBON 51K 5% 1/4W
R107	1-249-423-11	CARBON 3.3K 5% 1/4W
R109	1-249-428-11	CARBON 8.2K 5% 1/4W
R110	1-249-417-11	CARBON 1K 5% 1/4W
R112	1-215-434-00	CARBON 3.6K 5% 1/4W
R113	1-249-429-11	CARBON 10K 5% 1/4W
R114	1-249-426-11	CARBON 5.6K 5% 1/4W
R115	1-249-425-11	CARBON 4.7K 5% 1/4W
R201	1-249-420-11	CARBON 1.8K 5% 1/4W
R202	1-249-422-11	CARBON 2.7K 5% 1/4W
R203	1-249-441-11	CARBON 100K 5% 1/4W
R206	1-215-462-00	CARBON 51K 5% 1/4W
R207	1-249-423-11	CARBON 3.3K 5% 1/4W
R209	1-249-428-11	CARBON 8.2K 5% 1/4W
R210	1-249-417-11	CARBON 1K 5% 1/4W
R212	1-215-434-00	CARBON 3.6K 5% 1/4W
R213	1-249-429-11	CARBON 10K 5% 1/4W
R214	1-249-426-11	CARBON 5.6K 5% 1/4W
R215	1-249-425-11	CARBON 4.7K 5% 1/4W
R301	1-249-437-11	CARBON 47K 5% 1/4W
R302	1-215-460-00	METAL 43K 1% 1/6W
R303	1-249-437-11	CARBON 47K 5% 1/4W
R304	1-249-437-11	CARBON 47K 5% 1/4W
R305	1-247-704-11	CARBON 220 5% 1/4W
R306	1-247-707-11	CARBON 390 5% 1/4W
R307	1-249-429-11	CARBON 10K 5% 1/4W
R308	1-249-437-11	CARBON 47K 5% 1/4W
R309	1-215-430-00	CARBON 2.4K 5% 1/4W
R310	1-215-434-00	CARBON 3.6K 5% 1/4W
R311	1-215-454-00	CARBON 24K 5% 1/4W
R312	1-249-417-11	CARBON 1K 5% 1/4W
R314	1-247-742-11	CARBON 180 5% 1/2W
R315	1-247-742-11	CARBON 180 5% 1/2W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description
D508	8-719-969-90	DIODE SLP3070K
D509	8-719-969-90	DIODE SLP3070K
D510	8-719-969-90	DIODE SLP3070K
D901	1-806-937-11	DIODE GMA-01
D902	1-806-937-11	DIODE GMA-01
D903	8-719-301-60	DIODE SEL2910A-C
D904	8-719-301-60	DIODE SEL2910A-C
D905	8-719-301-60	DIODE SEL2910A-C
D906	8-719-301-60	DIODE SEL2910A-C
D907	8-719-301-60	DIODE SEL2910A-C
D908	8-719-301-60	DIODE SEL2910A-C
D909	8-719-301-60	DIODE SEL2910A-C
D910	8-719-301-60	DIODE SEL2910A-C
D911	8-719-301-60	DIODE SEL2910A-C
D1001	1-806-937-11	DIODE GMA-01
D1002	1-806-937-11	DIODE GMA-01
D1003	1-806-937-11	DIODE GMA-01
D1004	8-719-933-54	DIODE HZS9A2L
D1101	1-806-937-11	DIODE GMA-01
D1102	1-806-937-11	DIODE GMA-01
D1151	1-806-937-11	DIODE GMA-01
D1152	1-806-937-11	DIODE GMA-01
D1301	1-806-937-11	DIODE GMA-01
D1302	1-806-937-11	DIODE GMA-01
D1303	8-719-200-77	DIODE 10E2N
D1304	1-806-937-11	DIODE GMA-01
D1305	1-806-937-11	DIODE GMA-01
D1351	1-806-937-11	DIODE GMA-01
D1401	8-719-302-38	DIODE RBV-602-01
D1402	8-719-200-77	DIODE 10E2N
D1403	8-719-200-77	DIODE 10E2N
D1404	8-719-200-77	DIODE 10E2N
D1405	8-719-200-77	DIODE 10E2N
D1406	8-719-200-77	DIODE 10E2N
D1407	8-719-200-77	DIODE 10E2N
D1408	8-719-200-77	DIODE 10E2N
D1414	8-719-200-77	DIODE 10E2N
D1418	8-719-934-16	DIODE HZS27L
D1419	8-719-160-23	DIODE RD5.1F-B2
D1420	8-719-933-70	DIODE HZS11C2L
D1421	8-719-933-70	DIODE HZS11C2L
D1423	8-719-942-33	DIODE HZ3CLL
D2001	1-807-689-11	DIODE SLP9070
D2002	1-807-689-11	DIODE SLP9070
D2003	8-719-969-90	DIODE SLP3070K
D2004	8-719-969-90	DIODE SLP3070K
D2005	8-719-969-90	DIODE SLP3070K
D2006	8-719-969-90	DIODE SLP3070K
D2007	8-719-969-90	DIODE SLP3070K
F1401⚠	1-532-259-00	FUSE, TIME-LAG (T1.6A)
F1402⚠	1-532-203-00	FUSE, TIME-LAG (T2A)
F1403⚠	1-532-203-00	FUSE, TIME-LAG (T2A)
F1404⚠	1-532-259-00	(AEP,West Germany).FUSE,TIME-LAG (T1.6A)
IC81-A	8-759-111-44	IC UPC4570C-1
IC81-B	8-759-111-44	IC UPC4570C-1

Ref.No.	Part No.	Description
IC301	8-752-031-67	IC CXA1100P
IC302	8-752-032-60	IC CXA1198P
IC303	8-759-240-52	IC TC4052BP
IC304	8-759-601-41	IC M4053BP
IC401	8-752-803-72	IC CXP5048H-115S
IC402	8-759-240-52	IC TC4052BP
IC901	8-759-917-42	IC IR2E31A
IC1001	8-759-820-38	IC LA6458D
IC1002	8-759-800-37	IC LC4066BH
IC1003	8-759-802-52	IC LC7818
IC1004	1-807-943-11	IC LA6458S
IC1101	8-759-820-38	IC LA6458D
IC1102	8-759-602-04	IC M5226P
IC1152	8-759-602-04	IC M5226P
IC1301	8-749-941-52	IC STK4152II
IC1302	8-759-111-68	IC UPC1237HA
IC1401	8-759-604-33	IC M5F7812
IC2001	8-759-820-01	IC LC6527C-3438
IC2002	8-749-920-03	IC GP1U52
L41-B	1-410-780-11	INDUCTOR 27MMH
L61-B	1-410-780-11	INDUCTOR 27MMH
L301	1-408-080-00	INDUCTOR 100UH
L1301	*1-420-872-00	COIL, AIR CORE 1.9UH
L1351	*1-420-872-00	COIL, AIR CORE 1.9UH
LPF101	1-236-087-11	FILTER, LOW PASS
LPF201	1-236-087-11	FILTER, LOW PASS
M1	X-3343-408-1	MOTOR ASSY
M2	X-3343-408-1	MOTOR ASSY
PM1	1-454-456-11	PLUNGER
PM2	1-454-456-11	SOLENOID, PLUNGER
Q11-A	8-729-900-65	TRANSISTOR DTA144ES
Q11-B	8-729-900-65	TRANSISTOR DTA144ES
Q12-A	8-719-939-11	TRANSISTOR GP2S09-B
Q12-B	8-719-939-11	TRANSISTOR GP2S09-B
Q81-B	8-729-802-34	TRANSISTOR 2SD1387
Q82-B	8-729-600-27	TRANSISTOR 2SC634SP
Q83-B	8-729-600-27	TRANSISTOR 2SC634SP
Q101	8-729-806-38	TRANSISTOR 2SC3399
Q103	8-729-806-26	TRANSISTOR 2SC3901
Q104	8-729-806-26	TRANSISTOR 2SC3901
Q201	8-729-806-38	TRANSISTOR 2SC3399
Q203	8-729-806-26	TRANSISTOR 2SC3901
Q204	8-729-806-26	TRANSISTOR 2SC3901
Q301	8-729-806-38	TRANSISTOR 2SC3399
Q302	8-729-806-20	TRANSISTOR 2SA1345
Q401	9-986-159-01	TRANSISTOR 2SA1348
Q402	8-729-801-93	TRANSISTOR 2SD1387
Q403	8-729-801-83	TRANSISTOR 2SB1013
Q404	8-729-801-83	TRANSISTOR 2SB1013
Q405	8-729-806-26	TRANSISTOR 2SC3901
Q406	8-729-801-83	TRANSISTOR 2SB1013
Q407	8-729-801-83	TRANSISTOR 2SB1013
Q408	8-729-806-26	TRANSISTOR 2SC3901
Q411	9-986-159-01	TRANSISTOR 2SA1348
Q412	8-729-806-20	TRANSISTOR 2SA1345

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
R1031	1-249-409-11	CARBON	220	5%	1/4W
R1032	1-249-421-11	CARBON	2.2K	5%	1/4W
R1033	1-249-433-11	CARBON	22K	5%	1/4W
R1034	1-249-431-11	CARBON	15K	5%	1/4W
R1040	1-249-433-11	CARBON	22K	5%	1/4W
R1041	1-249-433-11	CARBON	22K	5%	1/4W
R1042	1-249-433-11	CARBON	22K	5%	1/4W
R1043	1-249-433-11	CARBON	22K	5%	1/4W
R1044	1-215-491-00	CARBON	820K	5%	1/4W
R1045	1-249-433-11	CARBON	22K	5%	1/4W
R1046	1-249-425-11	CARBON	4.7K	5%	1/4W
R1051	1-249-441-11	CARBON	100K	5%	1/4W
R1052	1-249-417-11	CARBON	1K	5%	1/4W
R1053	1-249-441-11	CARBON	100K	5%	1/4W
R1054	1-249-416-11	CARBON	820	5%	1/4W
R1055	1-215-487-00	CARBON	560K	5%	1/4W
R1056	1-249-437-11	CARBON	47K	5%	1/4W
R1057	1-249-441-11	CARBON	100K	5%	1/4W
R1058	1-249-409-11	CARBON	220	5%	1/4W
R1059	1-249-409-11	CARBON	220	5%	1/4W
R1060	1-249-417-11	CARBON	1K	5%	1/4W
R1061	1-249-417-11	(WEST GERMANY)...CARBON	1K	5%	1/4W
R1062	1-215-493-00	CARBON	1M	5%	1/4W
R1063	1-249-413-11	CARBON	470	5%	1/4W
R1064	1-215-487-00	CARBON	560K	5%	1/4W
R1065	1-249-417-11	CARBON	1K	5%	1/4W
R1067	1-249-417-11	CARBON	1K	5%	1/4W
R1070	1-215-493-00	CARBON	1M	5%	1/4W
R1071	1-215-487-00	CARBON	560K	5%	1/4W
R1072	1-215-487-00	CARBON	560K	5%	1/4W
R1073	1-215-487-00	CARBON	560K	5%	1/4W
R1074	1-249-441-11	CARBON	100K	5%	1/4W
R1075	1-249-437-11	CARBON	47K	5%	1/4W
R1076	1-249-429-11	CARBON	10K	5%	1/4W
R1077	1-249-441-11	CARBON	100K	5%	1/4W
R1078	1-249-441-11	CARBON	100K	5%	1/4W
R1079	1-249-441-11	CARBON	100K	5%	1/4W
R1080	1-249-429-11	CARBON	10K	5%	1/4W
R1081	1-249-409-11	CARBON	220	5%	1/4W
R1082	1-249-421-11	CARBON	2.2K	5%	1/4W
R1083	1-249-433-11	CARBON	22K	5%	1/4W
R1090	1-249-429-11	CARBON	10K	5%	1/4W
R1091	1-249-429-11	CARBON	10K	5%	1/4W
R1092	1-249-441-11	CARBON	100K	5%	1/4W
R1093	1-249-417-11	CARBON	1K	5%	1/4W
R1094	1-249-433-11	CARBON	22K	5%	1/4W
R1101	1-249-441-11	CARBON	100K	5%	1/4W
R1102	1-249-417-11	CARBON	1K	5%	1/4W
R1103	1-249-441-11	CARBON	100K	5%	1/4W
R1104	1-249-425-11	CARBON	4.7K	5%	1/4W
R1105	1-249-425-11	CARBON	4.7K	5%	1/4W
R1106	1-249-441-11	CARBON	100K	5%	1/4W
R1107	1-215-493-00	CARBON	1M	5%	1/4W
R1108	1-249-428-11	CARBON	8.2K	5%	1/4W
R1109	1-249-433-11	CARBON	22K	5%	1/4W
R1110	1-249-422-11	CARBON	2.7K	5%	1/4W
R1111	1-247-895-00	CARBON	470K	5%	1/4W

Ref.No.	Part No.	Description			
R1112	1-249-427-11	CARBON	6.8K	5%	1/4W
R1113	1-249-412-11	CARBON	390	5%	1/4W
R1114	1-249-401-11	CARBON	47	5%	1/4W
R1115	1-249-429-11	CARBON	10K	5%	1/4W
R1118	1-249-425-11	(AEP,WEST GERMANY) ...CARBON	4.7K	5%	1/4W
R1120	1-249-421-11	CARBON	2.2K	5%	1/4W
R1121	1-249-433-11	CARBON	22K	5%	1/4W
R1122	1-249-433-11	CARBON	22K	5%	1/4W
R1123	1-247-732-11	CARBON	27	5%	1/2W
R1124	1-247-732-11	CARBON	27	5%	1/2W
R1125	1-249-425-11	CARBON	4.7K	5%	1/4W
R1126	1-249-425-11	CARBON	4.7K	5%	1/4W
R1127	1-247-727-11	CARBON	10	5%	1/2W
R1128	1-247-727-11	CARBON	10	5%	1/2W
R1151	1-249-441-11	CARBON	100K	5%	1/4W
R1152	1-249-417-11	CARBON	1K	5%	1/4W
R1153	1-249-441-11	CARBON	100K	5%	1/4W
R1154	1-249-425-11	CARBON	4.7K	5%	1/4W
R1155	1-249-425-11	CARBON	4.7K	5%	1/4W
R1156	1-249-441-11	CARBON	100K	5%	1/4W
R1157	1-215-493-00	CARBON	1M	5%	1/4W
R1158	1-249-428-11	CARBON	8.2K	5%	1/4W
R1159	1-249-433-11	CARBON	22K	5%	1/4W
R1160	1-249-422-11	CARBON	2.7K	5%	1/4W
R1161	1-247-895-00	CARBON	470K	5%	1/4W
R1162	1-249-427-11	CARBON	6.8K	5%	1/4W
R1163	1-249-412-11	CARBON	390	5%	1/4W
R1164	1-249-401-11	CARBON	47	5%	1/4W
R1170	1-249-421-11	CARBON	2.2K	5%	1/4W
R1201	1-249-441-11	CARBON	100K	5%	1/4W
R1202	1-249-441-11	CARBON	100K	5%	1/4W
R1203	1-249-417-11	CARBON	1K	5%	1/4W
R1204	1-249-426-11	CARBON	5.6K	5%	1/4W
R1205	1-249-431-11	CARBON	15K	5%	1/4W
R1206	1-249-441-11	CARBON	100K	5%	1/4W
R1207	1-249-421-11	CARBON	2.2K	5%	1/4W
R1208	1-249-417-11	CARBON	1K	5%	1/4W
R1303	1-249-417-11	CARBON	1K	5%	1/4W
R1304	1-249-438-11	CARBON	56K	5%	1/4W
R1305	1-249-414-11	CARBON	560	5%	1/4W
R1306	1-249-438-11	CARBON	56K	5%	1/4W
R1307	1-247-756-11	CARBON	2.2K	5%	1/2W
R1308	1-247-756-11	CARBON	2.2K	5%	1/2W
R1309⚠	1-212-881-11	FUSIBLE	100	5%	1/4W
R1310	1-247-752-11	CARBON	1K	5%	1/2W
R1311	1-247-752-11	CARBON	1K	5%	1/2W
R1312	1-249-417-11	CARBON	1K	5%	1/4W
R1313	1-249-431-11	CARBON	15K	5%	1/4W
R1314	1-217-156-00	METAL PLATE	0.22		
R1315	1-249-441-11	CARBON	100K	5%	1/4W
R1316	1-247-727-11	CARBON	10	5%	1/2W
R1317	1-247-727-11	CARBON	10	5%	1/2W
R1318	1-249-438-11	CARBON	56K	5%	1/4W
R1319	1-249-429-11	CARBON	10K	5%	1/4W
R1320	1-249-441-11	CARBON	100K	5%	1/4W
R1321	1-249-430-11	CARBON	12K	5%	1/4W
R1322	1-249-437-11	CARBON	47K	5%	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
R351	1-215-462-00	CARBON	51K	5%	1/4W
R352	1-215-468-00	CARBON	91K	5%	1/4W
R353	1-249-435-11	CARBON	33K	5%	1/4W
R354	1-215-468-00	CARBON	91K	5%	1/4W
R355	1-247-881-00	CARBON	120K	5%	1/4W
R356	1-249-437-11	CARBON	47K	5%	1/4W
R357	1-215-452-00	CARBON	20K	5%	1/4W
R358	1-215-470-00	CARBON	110K	5%	1/4W
R359	1-249-436-11	CARBON	39K	5%	1/4W
R360	1-215-466-00	CARBON	75K	5%	1/4W
R361	1-215-458-00	CARBON	36K	5%	1/4W
R362	1-215-468-00	CARBON	91K	5%	1/4W
R363	1-249-440-11	CARBON	82K	5%	1/4W
R364	1-215-474-00	CARBON	160K	5%	1/4W
R365	1-249-437-11	CARBON	47K	5%	1/4W
R366	1-215-468-00	CARBON	91K	5%	1/4W
R367	1-247-881-00	CARBON	120K	5%	1/4W
R368	1-215-466-00	CARBON	75K	5%	1/4W
R369	1-249-436-11	CARBON	39K	5%	1/4W
R370	1-215-476-00	CARBON	200K	5%	1/4W
R371	1-215-462-00	CARBON	51K	5%	1/4W
R372	1-215-466-00	CARBON	75K	5%	1/4W
R373	1-215-458-00	CARBON	36K	5%	1/4W
R374	1-249-440-11	CARBON	82K	5%	1/4W
R375	1-249-439-11	CARBON	68K	5%	1/4W
R401	1-249-417-11	CARBON	1K	5%	1/4W
R402	1-249-417-11	CARBON	1K	5%	1/4W
R403	1-249-425-11	CARBON	4.7K	5%	1/4W
R404	1-249-417-11	CARBON	1K	5%	1/4W
R405	1-249-425-11	CARBON	4.7K	5%	1/4W
R406	1-249-421-11	CARBON	2.2K	5%	1/4W
R407	1-249-425-11	CARBON	4.7K	5%	1/4W
R408	1-247-887-00	CARBON	220K	5%	1/4W
R409	1-249-438-11	CARBON	56K	5%	1/4W
R410	1-249-417-11	CARBON	1K	5%	1/4W
R411	1-249-425-11	CARBON	4.7K	5%	1/4W
R412	1-249-421-11	CARBON	2.2K	5%	1/4W
R413	1-249-425-11	CARBON	4.7K	5%	1/4W
R414	1-247-887-00	CARBON	220K	5%	1/4W
R415	1-249-438-11	CARBON	56K	5%	1/4W
R416	1-249-433-11	CARBON	22K	5%	1/4W
R417	1-249-425-11	CARBON	4.7K	5%	1/4W
R418	1-249-425-11	CARBON	4.7K	5%	1/4W
R420	1-249-437-11	CARBON	47K	5%	1/4W
R421	1-249-437-11	CARBON	47K	5%	1/4W
R422	1-249-433-11	CARBON	22K	5%	1/4W
R430	1-249-411-11	CARBON	330	5%	1/4W
R431	1-249-411-11	CARBON	330	5%	1/4W
R432	1-249-407-11	CARBON	150	5%	1/4W
R433	1-249-407-11	CARBON	150	5%	1/4W
R434	1-249-407-11	CARBON	150	5%	1/4W
R435	1-249-407-11	CARBON	150	5%	1/4W
R436	1-249-410-11	CARBON	270	5%	1/4W
R437	1-249-407-11	CARBON	150	5%	1/4W
R438	1-249-407-11	CARBON	150	5%	1/4W
R439	1-249-407-11	CARBON	150	5%	1/4W
R440	1-249-437-11	CARBON	47K	5%	1/4W

Ref.No.	Part No.	Description			
R442	1-249-425-11	CARBON	4.7K	5%	1/4W
R443	1-249-417-11	CARBON	1K	5%	1/4W
R444	1-249-417-11	CARBON	1K	5%	1/4W
R445	1-249-417-11	CARBON	1K	5%	1/4W
R446	1-249-417-11	CARBON	1K	5%	1/4W
R447	1-249-433-11	CARBON	22K	5%	1/4W
R448	1-249-421-11	CARBON	2.2K	5%	1/4W
R451	1-249-417-11	CARBON	1K	5%	1/4W
R452	1-249-417-11	CARBON	1K	5%	1/4W
R453	1-249-417-11	CARBON	1K	5%	1/4W
R501	1-215-432-00	CARBON	3K	5%	1/4W
R503	1-249-420-11	CARBON	1.8K	5%	1/4W
R504	1-249-418-11	CARBON	1.2K	5%	1/4W
R505	1-249-420-11	CARBON	1.8K	5%	1/4W
R506	1-249-418-11	CARBON	1.2K	5%	1/4W
R507	1-249-423-11	CARBON	3.3K	5%	1/4W
R508	1-249-420-11	CARBON	1.8K	5%	1/4W
R509	1-249-418-11	CARBON	1.2K	5%	1/4W
R511	1-249-423-11	CARBON	3.3K	5%	1/4W
R512	1-249-420-11	CARBON	1.8K	5%	1/4W
R513	1-249-418-11	CARBON	1.2K	5%	1/4W
R514	1-249-420-11	CARBON	1.8K	5%	1/4W
R515	1-249-418-11	CARBON	1.2K	5%	1/4W
R901	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-435-11	CARBON	33K	5%	1/4W
R903	1-249-441-11	CARBON	100K	5%	1/4W
R904	1-249-413-11	CARBON	470	5%	1/4W
R905	1-249-429-11	CARBON	10K	5%	1/4W
R906	1-247-749-11	CARBON	560	5%	1/2W
R951	1-249-429-11	CARBON	10K	5%	1/4W
R1001	1-249-441-11	CARBON	100K	5%	1/4W
R1002	1-249-417-11	CARBON	1K	5%	1/4W
R1003	1-249-441-11	CARBON	100K	5%	1/4W
R1004	1-249-416-11	CARBON	820	5%	1/4W
R1005	1-215-487-00	CARBON	560K	5%	1/4W
R1006	1-249-437-11	CARBON	47K	5%	1/4W
R1007	1-249-441-11	CARBON	100K	5%	1/4W
R1008	1-249-409-11	CARBON	220	5%	1/4W
R1009	1-249-409-11	CARBON	220	5%	1/4W
R1010	1-249-417-11	CARBON	1K	5%	1/4W
R1011	1-249-417-11	(WEST GERMANY)...CARBON	1K	5%	1/4W
R1012	1-215-493-00	CARBON	1M	5%	1/4W
R1013	1-249-413-11	CARBON	470	5%	1/4W
R1014	1-215-487-00	CARBON	560K	5%	1/4W
R1015	1-249-417-11	CARBON	1K	5%	1/4W
R1017	1-249-417-11	CARBON	1K	5%	1/4W
R1020	1-215-493-00	CARBON	1M	5%	1/4W
R1021	1-215-487-00	CARBON	560K	5%	1/4W
R1022	1-215-487-00	CARBON	560K	5%	1/4W
R1023	1-215-487-00	CARBON	560K	5%	1/4W
R1024	1-249-441-11	CARBON	100K	5%	1/4W
R1025	1-249-437-11	CARBON	47K	5%	1/4W
R1026	1-249-429-11	CARBON	10K	5%	1/4W
R1027	1-249-441-11	CARBON	100K	5%	1/4W
R1028	1-249-441-11	CARBON	100K	5%	1/4W
R1029	1-249-441-11	CARBON	100K	5%	1/4W
R1030	1-249-429-11	CARBON	10K	5%	1/4W

Ref.No.	Part No.	Description
R1323	1-247-764-11	CARBON 10K 5% 1/2W
R1324⚠	1-215-890-11	METAL OXIDE 470 5% 2W F
R1325	1-247-745-11	CARBON 330 5% 1/2W
R1326	1-247-727-11	(WEST GERMANY)...CARBON 10 5% 1/2W
R1353	1-249-417-11	CARBON 1K 5% 1/4W
R1354	1-249-438-11	CARBON 56K 5% 1/4W
R1355	1-249-414-11	CARBON 560 5% 1/4W
R1356	1-249-438-11	CARBON 56K 5% 1/4W
R1357	1-247-756-11	CARBON 2.2K 5% 1/2W
R1358	1-247-756-11	CARBON 2.2K 5% 1/2W
R1359⚠	1-212-881-11	FUSIBLE 100 5% 1/4W F
R1362	1-249-417-11	CARBON 1K 5% 1/4W
R1363	1-249-431-11	CARBON 15K 5% 1/4W
R1364	1-217-156-00	RES, METAL PLATE 0.22
R1365	1-249-441-11	CARBON 100K 5% 1/4W
R1366	1-247-727-11	CARBON 10 5% 1/2W
R1367	1-247-727-11	CARBON 10 5% 1/2W
R1368	1-249-437-11	CARBON 47K 5% 1/4W
R1375	1-247-745-11	CARBON 330 5% 1/2W
R1376	1-247-727-11	(WEST GERMANY)...CARBON 10 5% 1/2W
R1401	1-249-418-11	CARBON 1.2K 5% 1/4W
R1402	1-249-418-11	CARBON 1.2K 5% 1/4W
R1403	1-249-428-11	CARBON 8.2K 5% 1/4W
R1405	1-249-421-11	CARBON 2.2K 5% 1/4W
R1406	1-249-421-11	CARBON 2.2K 5% 1/4W
R1407	1-249-421-11	CARBON 2.2K 5% 1/4W
R1408	1-249-411-11	CARBON 330 5% 1/4W
R1409	1-249-419-11	CARBON 1.5K 5% 1/4W
R1410	1-249-422-11	CARBON 2.7K 5% 1/4W
R1412	1-249-426-11	CARBON 5.6K 5% 1/4W
R1413⚠	1-212-934-00	FUSIBLE 1 5% 1/2W F
R1414⚠	1-212-857-00	FUSIBLE 10 5% 1/4W F
R2001	1-247-746-11	CARBON 390 5% 1/2W
R2002	1-247-749-11	CARBON 560 5% 1/2W
R2003	1-247-749-11	CARBON 560 5% 1/2W
R2004	1-247-749-11	CARBON 560 5% 1/2W
R2005	1-247-749-11	CARBON 560 5% 1/2W
R2006	1-247-749-11	CARBON 560 5% 1/2W
R2007	1-249-429-11	CARBON 10K 5% 1/4W
R2010	1-249-417-11	CARBON 1K 5% 1/4W
R2011	1-249-417-11	CARBON 1K 5% 1/4W
R2022	1-249-425-11	CARBON 4.7K 5% 1/4W
R2023	1-249-429-11	CARBON 10K 5% 1/4W
R2024	1-249-441-11	CARBON 100K 5% 1/4W
RV41-A	1-228-989-00	RES, ADJ, CARBON 470
RV41-B	1-228-989-00	RES, ADJ, CARBON 470
RV42-B	1-230-499-11	RES, ADJ, CARBON 100K
RV61-A	1-228-989-00	RES, ADJ, CARBON 470
RV61-B	1-228-989-00	RES, ADJ, CARBON 470
RV62-B	1-230-499-11	RES, ADJ, CARBON 100K

Ref.No.	Part No.	Description
RV101	1-228-994-00	RES, ADJ, CARBON 10K
RV201	1-228-994-00	RES, ADJ, CARBON 10K
RV1101	1-238-065-21	RES, VAR, SLIDE 250K/250K (100Hz)
RV1102	1-238-065-21	RES, VAR, SLIDE 250K/250K (330Hz)
RV1103	1-238-065-21	RES, VAR, SLIDE 250K/250K (1kHz)
RV1104	1-238-065-21	RES, VAR, SLIDE 250K/250K (3.3kHz)
RV1105	1-238-065-21	RES, VAR, SLIDE 250K/250K (10kHz)
RV1106	1-238-101-21	RES, VAR, SLIDE 100K (BALANCE)
RV1107	1-237-884-11	RES, VAR, CARBON 100K/100K (VOLUME)
RV1201	1-238-100-11	RES, VAR, CARBON 100K/100K (MIC LEVEL)
RY81-B	1-515-614-11	RELAY
RY1301	1-515-501-00	RELAY
S11-A	1-571-281-21	SWITCH, LEAF (HALF)
S11-B	1-571-281-21	SWITCH, LEAF (HALF)
S12-B	1-571-281-21	SWITCH, LEAF (REC (A))
S13-B	1-571-281-21	SWITCH, LEAF (REC (B))
S14-A	1-571-281-21	SWITCH, LEAF (CrO2)
S14-B	1-571-281-21	SWITCH, LEAF (CrO2)
S501	1-554-303-21	SWITCH, KEY BOARD (▷ (DECK A))
S502	1-554-303-21	SWITCH, KEY BOARD (◁ (DECK A))
S503	1-554-303-21	SWITCH, KEY BOARD (◀◀ (DECK A))
S504	1-554-303-21	SWITCH, KEY BOARD (▶▶ (DECK A))
S505	1-554-303-21	SWITCH, KEY BOARD (■ (DECK A))
S506	1-554-303-21	SWITCH, KEY BOARD (● REC MUTE)
S507	1-554-303-21	SWITCH, KEY BOARD (▷ (DECK B))
S508	1-554-303-21	SWITCH, KEY BOARD (◁ (DECK B))
S509	1-554-303-21	SWITCH, KEY BOARD (II PAUSE)
S511	1-554-303-21	SWITCH, KEY BOARD (REC)
S512	1-554-303-21	SWITCH, KEY BOARD (◀◀ (DECK B))
S513	1-554-303-21	SWITCH, KEY BOARD (▶▶ (DECK B))
S514	1-554-303-21	SWITCH, KEY BOARD (■ (DECK B))
S515	1-554-303-21	SWITCH, KEY BOARD (DUBBING HIGH SPEED (DECK B))
S516	1-554-303-21	SWITCH, KEY BOARD (DUBBING NORMAL SPEED (DECK B))
S517	1-570-837-11	SWITCH, SLIDE (DIRECTION)
S519	1-570-849-11	SWITCH, SLIDE (DOLBY NR)
S1101	1-571-292-11	SWITCH, PUSH (1 KEY)(DOL)
S1102	1-571-292-11	(AEP,WEST GERMANY)...SWITCH, PUSH (1 KEY)(SURROUND)
S1401⚠	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)
S2001	1-554-303-21	SWITCH, KEY BOARD (WM)
S2002	1-554-303-21	SWITCH, KEY BOARD (PHONO)
S2003	1-554-303-21	SWITCH, KEY BOARD (TUNER)
S2004	1-554-303-21	SWITCH, KEY BOARD (CD)
S2005	1-554-303-21	SWITCH, KEY BOARD (TAPE)
S2006	1-554-303-21	SWITCH, KEY BOARD (VIDEO/DAT)
T81-B	1-433-331-11	TRANSFORMER, BIAS OSCILLATION
T1401⚠	1-449-219-11	TRANSFORMER, POWER
TM1301	1-536-705-00	TERMINAL BOARD (SP)
X401	1-567-772-11	VIBRATOR, CERAMIC (4.19MHz)

ACCESSORY & PACKING MATERIAL

Part No.	Description
*4-908-854-01	CUSHION
4-921-934-01	SHEET,PROTECTION

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Sony Corporation
Audio Group

English
8880455-1
Printed in Japan
© 1988. 2
Published by A/V Engineering Service Dept.

9-953-117-11

DXA-D50

SONY
SERVICE MANUAL

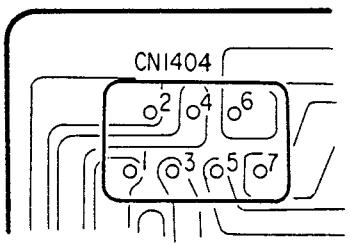
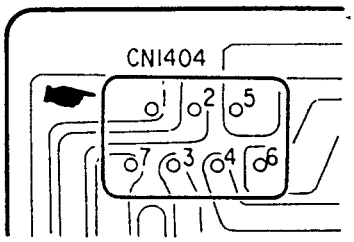
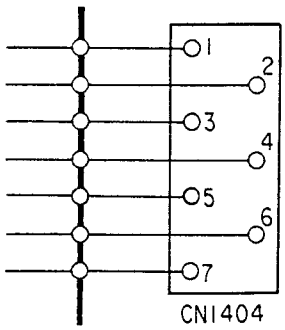
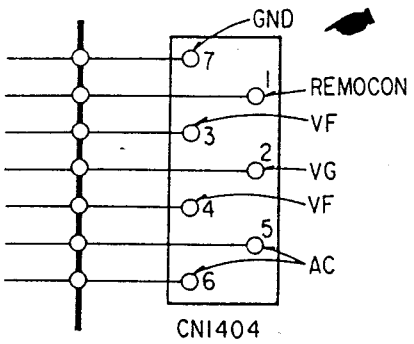
AEP Model
UK Model

CORRECTION-3

Correct your service manual as shown below.

☛ : **indicates corrected portion**

POWER BOARD

Page	INCORRECT	CORRECT
10	Location D-29 	Location D-29 
15	Location G-31 	Location G-31 

9-953-117-96

Sony Corporation
Audio Group

English
93F0461-1
Printed in Japan
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Published by Audio Sector Quality Assurance Dept.